

Slidell Landfill L.L.C.
310 Howze Beach Lane
Slidell, LA 70461
985-643-2220

original to JOE
DeHart
Beas

July 23, 2009

Project No. 23106

MAIN FILE

Mr. Eura Dehart
Water Permit Division, Office of Environmental Services
Louisiana Department of Environmental Quality
P.O. Box 4313
Baton Rouge, LA 70821-4313

RE: Submittal of Response to Revised Expanded "IT" Questions
Slidell Landfill Construction and Demolition Debris Landfill
Slidell, Louisiana
AI No. 6054; LPDES Permit No. LA 0105465

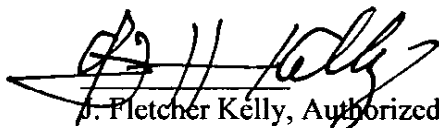
Dear Mr. Dehart:

In response to correspondence from the Louisiana Department of Environmental Quality (LDEQ), we are hereby submitting two copies of our responses to the Revised Expanded "IT" Questions. This submittal is relative to an LPDES permit currently being considered by the LDEQ.

We appreciate your assistance in this matter. As requested, please be advised of the following:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations."

Sincerely,



J. Fletcher Kelly, Authorized Member, Environmental Services Management
The Sole Member of Slidell Landfill, L.L.C.

RECEIVED

JUL 24 2009

LDEQ

**Response to Revised Expanded "IT Decision" Questions
In Support of
Slidell Landfill, L.L.C.'s
LPDES Permit Application**

Introduction

This submittal is provided in support of the renewal of Slidell Landfill's existing water discharge permit (LA0105465). Renewal of the water discharge permit is currently being considered by the Louisiana Department of Environmental Quality (LDEQ) through issuance of a Louisiana Pollutant Discharge Elimination System (LPDES) permit.

A response to the "IT Questions" was previously submitted to the LDEQ by Slidell Landfill, L.L.C. in conjunction with a Solid Waste permit modification application dated October, 2004 (revised April 2006). A copy of this response is provided in Appendix A and is intended to supplement the responses provided herein.

Background

Slidell Landfill is a fully permitted solid waste disposal facility located in St. Tammany Parish at 310 Howze Beach Lane in Slidell, Louisiana. Under its current water discharge permit, Slidell Landfill is permitted to discharge stormwater through Outfalls 001 and 002. Outfall 001 has been inactive for the past several years and is no longer in use. Slidell Landfill is also authorized to discharge treated sanitary sewer effluent through Outfall 003 and vehicle/equipment wash water through Outfall 004.

The current LPDES permit under consideration by the LDEQ includes the discharge of storm water through Outfall 001, the discharge of treated sanitary sewer effluent through Outfall 002, and the discharge of vehicle and equipment wash water through Outfall 004. By way of the LPDES permit application currently being considered by the LDEQ, Slidell Landfill, L.L.C. is requesting the elimination of one currently permitted storm water outfall and the renewal of three existing outfalls.

In conjunction with the LDEQ's approval of Slidell Landfill's October, 2004 (revised April, 2006) solid waste permit modification request, the LDEQ issued a Basis For Decision (BFD). A copy of the BFD has been provided as Appendix B. The BFD provided a comprehensive analysis of the "IT" Questions as they related to the prior permit modification request, including water discharge issues. The LDEQ's BFD states that "An extensive analysis of the "IT" requirements has been conducted. The Department finds that as part of the "IT" requirements, adverse environmental impacts have been minimized or avoided as much as possible consistently with the public welfare".

RECEIVED

JUL 24 2009

LDEQ

The facts and conclusions set forth in the LDEQ's BFD have changed little since its issuance in March, 2007, with the exception of the fact that the landfill is currently even more environmentally protective through new ownership, as discussed in subsequent paragraphs. Additionally, it should be noted that Slidell Landfill remains the only permitted Type III landfill in St. Tammany Parish, filling a critical role regarding waste disposal in the area.

With the foregoing preliminary considerations established, Slidell Landfill provides the following responses to the Revised Expanded "IT" Questions:

I. Have the potential and real adverse environmental effects of the proposed facility been avoided to the maximum extent possible?

The potential and real adverse environmental effects of the project have been avoided to the maximum extent possible. As demonstrated in previously submitted responses to the "IT" Questions (Appendix A), avoidance of adverse impacts has included consideration of impacts to groundwater, surface water, air quality, aesthetic impacts, safety risks, impacts to surrounding property values, and wetlands impacts.

The LDEQ's BFD reviewed each of these areas and correctly concluded that protective measures were in-place to minimize all impacts to the maximum extent possible. Since issuance of the BFD, Slidell Landfill, L.L.C. has been purchased by Environmental Services Management, L.L.C. (ESM). Management of the landfill was assumed by ESM in May, 2007, and the landfill was purchased by ESM in the summer of 2008.

As of May, 2007, coinciding with assumption of landfill management responsibilities by ESM, Slidell Landfill has been the subject of no notices of violations or any types of enforcement actions regarding operations at Slidell Landfill. An LDEQ inspection performed on December 23, 2008 states "Spotters and machine operators were observed inspecting incoming loads. Operations at the landfill were satisfactory. A records review of the annual report, current permit, worker certifications, interim cover records, records of waste loads and inspection logs found all records to be satisfactory".

In conjunction with its ongoing and extensive environmental compliance program, Slidell Landfill personnel complete a "Preventative Maintenance/Compliance Evaluation Form" for the landfill on a daily basis. A copy of the form has been provided as Appendix C. The form includes inspection items relative to all areas of the site, including the office and scale house area, the landfill area, perimeter berms and ditches, the stormwater holding pond, etc. Any issues of concern are identified and are immediately addressed. As an independent analysis of environmental compliance, Engineering Associates personnel perform site inspections and complete the Preventative Maintenance/Compliance Evaluation Form at a minimum frequency of once per month. Copies of completed forms are submitted to the LDEQ at the completion of each week.

In addition to the environmental compliance and voluntary procedures discussed in Appendix A, Slidell Landfill employs a minimum of two spotters at all times. Incoming loads to Slidell Landfill are subjected to scrutiny at the scale house/office and are then again scrutinized by one or more spotters as well as equipment operators. This methodology serves to ensure that only acceptable materials are received into the landfill.

Since the approval of the latest solid waste permit modification in 2007, confirmation that a Coastal Use Permit is not required for Slidell Landfill has been acquired. In addition, a permit has been acquired from the U.S. Army Corps of Engineers relative to a small area of Slidell Landfill that was under the jurisdiction of the Corps. Acquisition of these items further assures that Slidell Landfill has demonstrated avoidance of potential and real adverse environmental impacts to the maximum extent possible.

A. What are the potential environmental impacts of the permittee's proposed facility?

1. What wastes will be handled?

- a. Classes of chemicals
- b. Quantities (hazardous and non hazardous)
- c. Physical and chemical characteristics
- d. Hazardous waste classification (listed, characteristic, etc.)

Slidell Landfill accepts only non-hazardous construction and demolition debris and woodwaste. No chemicals are accepted for disposal in the landfill. In the event that unacceptable materials are observed in loads delivered to the landfill, the loads are not accepted.

2. How will they be handled?

- a. Treatment
- b. Storage
- c. Disposal

Loads of non-hazardous, acceptable Type III wastes are disposed of within the limits of the permitted landfill. No treatment occurs on site, and storage is limited to tires and/or white goods that are transported to offsite facilities for disposal under the conditions of Slidell Landfill's solid waste permit.

3. Sources of waste

- a. On-site generation (type and percentage of total handled)
- b. Off-site generation (type and percentage of total handled)

All wastes disposed of at Slidell Landfill are generated by off-site sources.

4. Where will the wastes be shipped if not handled at this site?

Wastes unacceptable for disposal at Slidell Landfill are typically picked up by recyclers of tires, white goods, etc. Should any other unacceptable wastes require off-site disposal, they would likely be transported to River Birch Landfill in Avondale, LA or another properly permitted recycling/disposal facility.

5. What wastes will remain on-site permanently?

Only construction and demolition debris/wood waste will remain on-site permanently. The waste is covered with a minimum of 12 inches of clay material every 30 days, in accordance with Slidell Landfill's solid waste permit. The final landfill cap will consist of a minimum of 24 inches of clay material overlain by 6 inches of topsoil.

B. By which of the following potential pathways could releases of hazardous materials from the proposed facility endanger local residents or other living organisms?

1. Air
2. Water
3. Soil
4. Food

Due to the nature of the types of materials accepted by Slidell Landfill (non-hazardous construction and demolition debris and wood waste), no adverse impacts to air, water, soil, or food are anticipated. Slidell Landfill has experienced no odor issues or air quality issues. All storm water and other water discharged from the site is sampled prior to discharge to ensure compliance with permit limitations. All storm water runoff is routed to a single pond that is sampled prior to discharge to ensure compliance with all requirements. The entire site is also surrounded by a levee that prevents run-on as well as run-off of storm water to and from the site.

Subsurface soils directly beneath the site consist predominately of stiff, highly impermeable clays. Whereas the facility accepts only construction and demolition debris and wood waste, no impacts to soil would be expected to occur. No food sources are known to be present in the vicinity of the landfill.

C. What is the likelihood or risk potential of such releases?

As previously stated, adverse impacts to air, water, soil, and/or food are considered unlikely due to the nature of the materials accepted by Slidell Landfill.

D. What are the real adverse environmental impacts of the permittee's proposed facility?

- 1. Short term effects**
 - a. Land area taken out of system**
- 2. Long term effects**

Whereas Slidell Landfill is an existing, permitted facility, there are no known short-term impacts. No new disposal cells are proposed for the facility through completion of its life-span. As such, no adverse long term effects are anticipated.

II. Does a cost benefit analysis of the environmental impact costs balanced against the social and economic benefits of the proposed facility demonstrate that the latter outweighs the former?

As noted in the LDEQ's BFD for Slidell Landfill (Appendix B),

"The social and economic benefits of the facility will greatly outweigh its environmental impact. As previously stated, the operational and permitting requirements help minimize the potential impact. Slidell Landfill provides services to the construction community and to the residents of St. Tammany that are in the process of rebuilding as well as providing a means for disposal of hurricane-generated debris. Therefore, offering a means of lowering disposal and transportation cost, reducing illegal dumping in open dumps, providing services in emergencies and disasters and stimulating the local economy. This is the only permitted Type III facility in the parish and closure of this landfill may increase the occurrence of illegal dumping throughout the parish and surrounding parishes."

The parish of St. Tammany has contracted with the firm of Camp, Dresser, and McKee (CDM) to prepare a "Solid Waste Management Implementation Plan" (The Plan) for the parish. A draft copy of The Plan has been submitted to the Parish and is dated February 11, 2009. Excerpts from The Plan have been included as Appendix D.

As noted in the Executive Summary of The Plan, in St. Tammany Parish "The population has grown by 20% between 2000 and 2006 with expected growth of over 35% over the next 20 years. With this population growth comes an increase in waste volume of Municipal Solid Waste (MSN) and Construction and Demolition Waste (C&D) including yard waste and potential recyclables." The Plan further states that "The principle need for St. Tammany Parish's solid waste management plan is the development of a C&D disposal facility... with rising costs in fuel, transporting this waste out of the Parish is not economical. This component must be first priority for St. Tammany Parish."

Since August 2005, Slidell Landfill has disposed of approximately 138,000 loads totaling over 3.6 million cubic yards of construction, demolition and woody waste at the landfill. The presence of a C&D landfill within the Parish is estimated to have saved St. Tammany Parish taxpayers over \$5 million in waste transportation costs since August of 2005. This dollar amount is based on a conservative average transportation cost of \$1.33 per mile. The site continues to save local residents and taxpayers an estimated \$3,000 per day in waste transportation costs alone.

As previously stated, Slidell Landfill is the only operating Type III landfill in St. Tammany Parish. The Plan prepared by CDM observes that "Given the need for disposal of this type of waste, particularly due to hurricane generated waste, the loss of this facility (Slidell Landfill) without an appropriate replacement would result in a hardship for the citizens and businesses in the Parish."

It should be noted that St. Tammany Parish has not identified a site to serve as a replacement for Slidell Landfill. Once a site is selected, a period of several years will likely be required for acquisition of applicable permits and mitigation of environmental impacts. This fact alone adequately supports the need for continued operation of Slidell Landfill. The LDEQ has previously concluded in its BFD that the social and economic benefits of Slidell Landfill greatly outweigh its environmental impact. Since the findings by the LDEQ, no changes have occurred to alter this conclusion. Rather, current conditions serve to further reinforce the need for continued operation of Slidell Landfill.

A. How was it determined that this facility was needed?

1. Local or regional survey
2. On-site or off-site needs
3. Regional solid waste management benefit
4. Generic survey of solid waste needs (compatibility with master plan)

Each of the above factors have been considered as discussed in Appendix A. As noted previously, Slidell Landfill is the only Type III landfill located in St. Tammany Parish. The landfill was instrumental in the rebuilding of St. Tammany and surrounding parishes following Hurricanes Katrina and Rita. The regional benefits to the community have been shown to far outweigh any potential environmental impacts.

With regard to a generic survey of solid waste needs and compatibility with a master plan, the previously cited Solid Waste Management Implementation Plan for St. Tammany Parish clearly establishes the need for a Type III landfill in St. Tammany Parish. The Plan states that "This component must be first priority for St. Tammany Parish".

B. What will be the positive economic effects on the local community?

1. How many permanent jobs will be created?
2. What is the expected annual payroll?
3. What is the expected economic multiplier from item B2?
4. What is the expected tax base and who will receive benefits?

Slidell Landfill is an existing facility that employs approximately 10 people with a combined payroll of over \$400,000. The facility is estimated to have resulted in an economic benefit to the community of approximately \$1,000,000 (2.5 multiplier) in the form of vendors and equipment maintenance, fuel, professional fees, insurance premiums through local brokers, and miscellaneous expenditures with other local vendors. Over the life of the landfill, it is estimated that over \$173,000 in property taxes will be paid to St. Tammany Parish. In addition, payment of over \$300,000 in annual fees to the LDEQ is anticipated.

C. What will be the potential negative economic effects on the local community?

1. What are the possible effects on property values?

Diminishment of property values should not occur as a result of continued operation of Slidell Landfill. The landfill has existed for over 20 years and is bordered by a municipal waste pick-up station to the west, a mobile home park to the east, automobile dealerships and various commercial businesses to the north, and by an earthen levee followed by a residential development to the south. The commercial establishments and the mobile home park have existed side by side with Slidell Landfill for many years with no apparent diminishment of property values. The residential development located to the south of Slidell Landfill was constructed many years subsequent to commencement of operations at Slidell Landfill, further supporting an apparent lack of adverse impacts to property values.

2. Will public costs rise for:

- | | |
|-----------------------|---------------------------|
| a. Police protection | d. Schools |
| b. Fire protection | c. Roads (also see below) |
| c. Medical facilities | |

Slidell Landfill is an existing facility that has resulted in no known cost increases to police and fire protection, medical facilities, schools, or roads. State officials have confirmed in writing that adjoining roadways are adequate to service Slidell Landfill.

3. Does the prospective site have the potential for precluding economic development of the area by business or industries because of risk associated with establishing such operations adjacent to the proposed facility?

As previously stated, established businesses have operated side-by-side with Slidell Landfill for many years. Development of surrounding properties does not appear to have been hindered in any way as a result of operations at Slidell Landfill. In fact, a new automobile dealership, Levitz Cadillac/Chevrolet, was constructed and commenced operations at the entrance to the landfill in 2007.

D. Was transportation a factor in choosing the proposed site?

1. What model(s) of transportation will be used for the site?
 - a. Truck
 - b. Rail
 - c. Barge
 - d. Other

Transportation of materials to Slidell Landfill is by truck/trailer only. In the absence of Slidell Landfill, haul distances and associated tax payer costs, safety issues, etc., would likely be greatly increased. The next closest Type III landfill is located over 20 miles away and has limited roadway access.

2. What geographical area will it serve?

Slidell Landfill is currently permitted for an unlimited service area.

3. By how much will local road traffic volume increase?
 - a. Can local roads handle the traffic volume increase?
 - b. Can local roads handle the weight of trucks?

Whereas Slidell Landfill is an existing facility, no increase in traffic volume is anticipated. Adjacent roadways are adequate to handle the weight of trucks entering Slidell Landfill as confirmed through correspondence from the Louisiana Department of Transportation and Development included in the facility's solid waste permit.

E. What are the long-term expectation of the proposed site?

1. Longevity of the facility
2. Who owns the facility
3. Are the owners financially backed by others?
4. When is closure anticipated?
5. Who is responsible for the site after closure?
6. What assurances will there be that the site will be closed in accordance with the plan?
7. What financial assurances will be established to demonstrate the ability to handle the problems after closure?
8. Who certifies that the site is properly closed?
9. How are people protected from unwittingly buying land after closure?
 - a. Is the closed facility recorded in the deed?
 - b. What future uses are possible?

The life-span of Slidell Landfill is anticipated to be between 6-8 years. The life-span may be significantly shortened in the event of hurricanes and/or significant storm events. Slidell Landfill is owned by Environmental Services Management, L.L.C. (ESM). ESM purchased the landfill in the summer of 2008 and has operated the landfill since May of 2007. As required by solid waste regulations, ESM maintains appropriate financial assurance and insurance for the operation and closure of Slidell Landfill.

ESM is the responsible party for the site and will close and maintain the site upon its closure in accordance with solid waste regulations. Financial assurance is in-place for this purpose. The financial assurance includes adequate funding for performance of closure as well as post-closure maintenance activities.

A registered professional engineer will certify proper closure of the site. The property will be deed restricted to ensure that all parties are aware of the landfill's prior location. Future uses of the closed landfill are undetermined at this time but would likely include use as a parking lot or similar uses.

III. Are there alternative projects which would offer more protection to the environment than the proposed facility without unduly curtailing non-environmental benefits?

In its previously issued BFD, the LDEQ found that "there are no alternative projects which would offer more protection to the environment without unduly curtailing non-environmental benefits." The LDEQ considered alternative projects as well as alternative technologies in rendering its BFD, concluding that "There are no alternative practices that would entail less risk to human health and the environment."

The LDEQ also observed in its BFD that the alternative to deny Slidell Landfill's application "would result in immediate closure of the facility without the ability to achieve proper grades and slopes for closure. Additionally, the parish will not have sufficient time to seek (an) alternative disposal location for C&D debris generated in the parish."

With regard to alternate disposal locations, as referenced in the LDEQ's BFD, no additional Type III landfills have been proposed within St. Tammany Parish to date. It is anticipated that site selection, permit application preparation, permit reviews, etc., would require a period of several years once this process has been initiated. As such, the concern noted in the BFD regarding the need to provide adequate time for the Parish to seek an alternative location for its C&D debris remains valid.

A. Why was this technology chosen (e.g., incineration over landfilling?)

- 1. Are other technologies available?**
- 2. Describe the engineering design and operating techniques used to compensate for any site deficiencies.**

The alternative technologies of recycling and incineration were evaluated. However, as noted below, this type of waste is not suitable for such technology.

One alternative project is the recycling of Type III waste. However, in order to effectively recycle the waste, it would need to be sorted and stored prior to recycling. Traditionally, costs associated with these labor-intensive operations prohibit this option. Additionally, much of the Type III waste, such as demolition materials (e.g., sheetrock), do not easily lend themselves to recycling technologies.

A second alternative is incineration. However, much of this type of waste (concrete or plastic) does not readily lend itself to incineration, thus ruling out this option. Additionally, air emissions associated with this option may create unnecessary and unwanted environmental costs as well as environmental concerns.

Engineering design and operating techniques used to compensate for any site deficiencies include numerous "checks and balances" regarding site operations. First, loads are checked at the gate house to ensure acceptability of the materials entering the landfill. The loads are also inspected by spotters as they are being placed in the landfill. Unacceptable loads are not accepted, and any unacceptable materials identified subsequent to unloading activities are collected and disposed of in an appropriate manner. Secondly, all landfilled materials are covered with clay at a minimum frequency of once every 30 days. Lastly, all storm water from the facility is routed to a holding pond and sampled prior to discharge, ensuring compliance with water discharge permit standards.

B. Is the proposed technology an improvement over that presently available?

Slidell landfill is an existing permitted Type III landfill and no new technology is being proposed.

C. Describe the reliability of technology chosen.

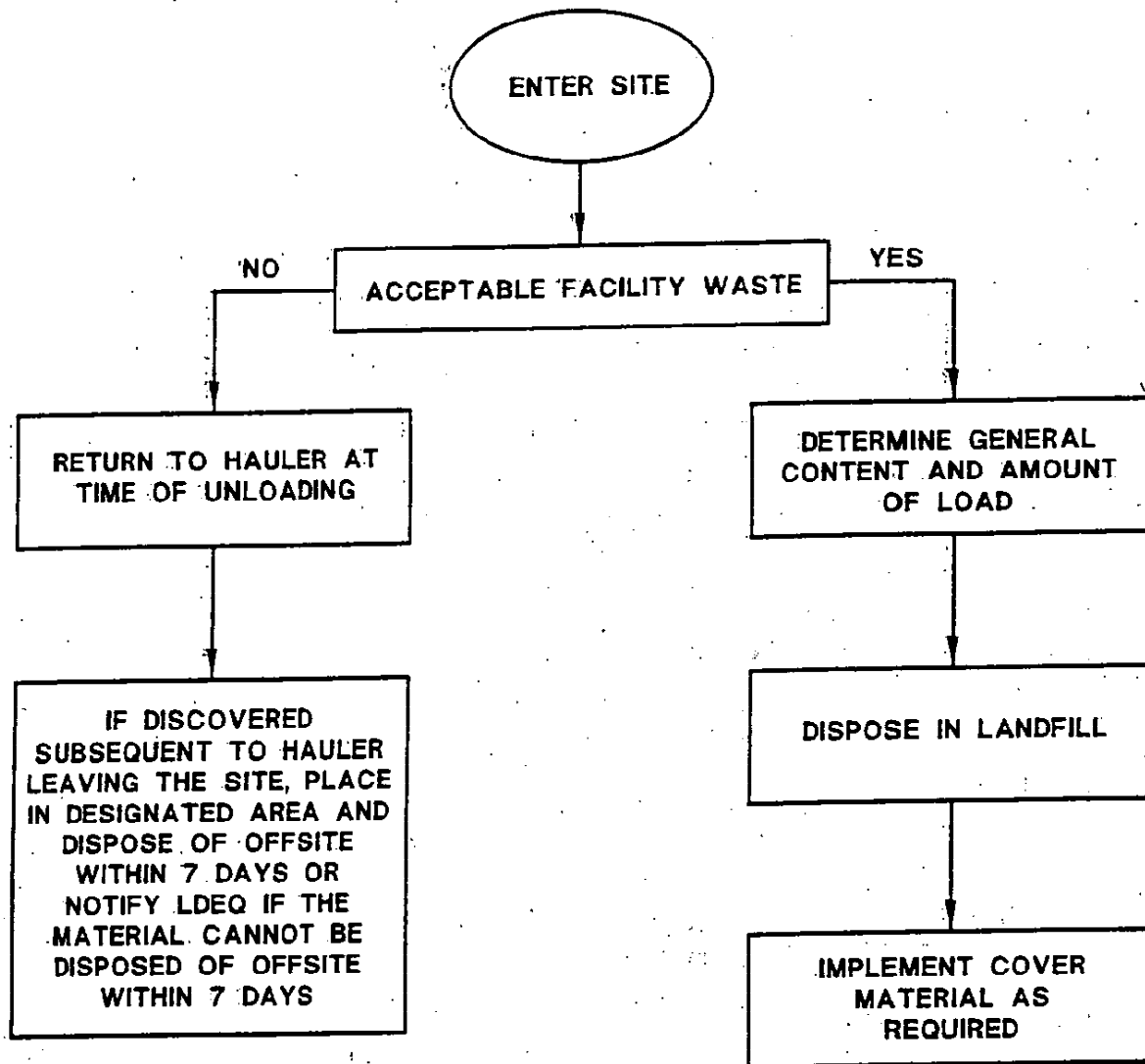
1. Past Experiences.
2. Environmental Impacts.

The practice of landfilling has been shown to be the most cost effective and environmentally sound manner for disposal of construction and demolition debris/wood wastes. Properly permitted and maintained Type III landfills exhibit very few adverse environmental impacts. It should be noted that Slidell Landfill has not been the subject of any violations or enforcement actions since assumption of site operations by the current landfill owners, ESM, in May, 2007.

D. Describe the sequence of technology used from arrival of wastes to the end process at the facility (flow chart).

- | | |
|---|-----------------|
| 1. Analysis of waste | 6. Monitoring |
| 2. Unloading | 7. Closure |
| 3. Storage | 8. Post-closure |
| 4. Treatment | 9. Disposal |
| 5. Any residuals requiring further handling | |

The attached flow chart illustrates the sequence of waste arrival at the facility to the end process.

**ENGINEERING****ASSOCIATES, INC.**

CONSULTING ENGINEERS

1415 DELPLAZA DRIVE
SUITE BBATON ROUGE, LA 70815
PH: (225) 928-2025

SLIDELL LANDFILL
ST. TAMMANY PARISH
SLIDELL, LOUISIANA

Client

SLIDELL LANDFILL
310 HOWZE BEACH LANE
SLIDELL, LOUISIANA

Project Title

**PROCESS
FLOW CHART**

Fig. No.

E. Will this facility replace an outmoded/worse polluting one?

Slidell Landfill is an existing, permitted Type III landfill and is not replacing any other facility. In the absence of Slidell Landfill, increased disposal costs as well as an increase in illicit dumping of materials would result.

F. What consumer products are generating the waste to be disposed? Are there alternative products that would entail less hazardous waste generation?

The types of materials disposed of at Slidell Landfill are limited to non-hazardous construction and demolition debris and wood waste. These materials are generated in conjunction with the demolition of existing structures and in conjunction with the construction of new structures. Wood wastes are generally associated with the occurrence of storms and other natural events. Obviously, the presence of facilities capable of disposing of these types of materials is critical to the growth and even the existence of viable communities. Whereas only non-hazardous materials are accepted at Slidell Landfill, there are no alternative products that would entail less hazardous waste generation.

IV. Are there alternative sites which would offer more protection to the environment than the proposed facility site without unduly curtailing non-environmental benefits?

Slidell Landfill is an existing, permitted Type III landfill that has been serving the residents of St. Tammany Parish and surrounding areas for many years. There are no alternative sites that would offer more protection to the environment than the existing site, without unduly curtailing non-environmental benefits. The LDEQ reached a similar conclusion in its BFD associated with Slidell Landfill's prior solid waste permit modification.

Several alternative sites have been discussed and considered in detail in conjunction with prior submittals to the LDEQ by Slidell Landfill. None of these sites were deemed acceptable upon evaluation of their environmental, social, and economic impacts.

A. Why was this site chosen?

1. Specific advantages of the site;
2. Were other sites considered and rejected?
3. Is the location of the site irrevocable; i.e., would denial of permit based on site preclude the project?

Slidell Landfill is a currently operation, properly permitted landfill. Specific advantages of the site include that it is currently permitted to receive Type III materials, it has been shown to exhibit geotechnical and engineering characteristics favorable to landfills, and it is located in an industrial zoned area. Further, the site is located in proximity to Type III waste generators with ready access via highway. No other sites exhibiting these favorable characteristics are known to be available.

While the permitting of a new Type III waste facility is a possibility, the costs associated with such (both environmental and non-environmental) are significant. Time requirements associated with site selection, permitting, and construction activities are also significant. In preserving the character of rural areas, turning "greenfield" space into industrial areas is undesirable, and known existing commercial/industrial areas do not currently provide sufficient space for a new facility. Whereas no suitable alternative sites are available, combined with the fact that permitting of a new site would require a period of several years, continued operation of Slidell Landfill represents maximum protection to the environment without unduly curtailing non-environmental benefits. Denial of the subject water discharge permit would preclude the project, thereby precluding associated benefits.

B. Is the chosen site in or near environmentally sensitive areas?

- 1. Wetlands**
- 2. Estuaries**
- 3. Critical habitat**
- 4. Historic or culturally significant areas**
 - a. Indian mounds**
 - b. Antebellum houses**
 - c. Tourist attractions or facilities (e.g., bed and breakfast inns)**
 - d. Campgrounds or parks**

As noted in the solid waste permit renewal application recently submitted to the LDEQ, a permit has been issued by the Corps of Engineers for a small area of wetlands located within the limits of the landfill. With regard to estuaries, no environmentally significant estuaries are known to exist near the landfill. There are no known critical habitats, historic or culturally significant areas, Indian mounds, antebellum houses, tourist attractions or facilities, or significant campgrounds or parks in the immediate vicinity of Slidell Landfill.

C. What is the zoning and existing land use of the prospective site and nearby area?

- 1. Is the site located near existing heavy industrial, chemical process or refinery operations?**
- 2. Is there a precedent for chemical contamination near the site or is the soil and water pristine?**
- 3. Is the area particularly noted for its esthetic beauty?**

Slidell Landfill is located in an industrial zoned area. The site is bordered to the west by a permitted municipal transfer station, to the east by an earthen ditch/canal followed by a mobile home park, to the north by several automobile dealerships and various commercial businesses, and to the south by an earthen levee, a canal, and a residential development.

There is no precedent for chemical contamination near the site. The area is not particularly noted for its aesthetic beauty.

D. Is the site flood prone?

1. Is the site in a flood plain?

- a. How current are the maps used to make flood plain determinations?
- b. What is the elevation of the site?
- c. Is diking required or desired to provide flood protection?
 - (1) What is the design height of the dike?
 - (2) How is the dike protected from erosion?
 - (3) What frequency and design storm was used?
 - (4) Is the access to the site over or through dikes?

The Slidell Landfill site is located within the limits of the 100-year flood zone based on FEMA Flood Rate Map Panel 535 of 600 dated March 1, 1984. The 100-year flood elevation for the site is approximately 9 feet above mean sea level. Whereas Slidell Landfill is an existing facility that has operated for many years, natural ground elevations have been modified in conjunction with construction of cells and placement of incoming materials. The current elevations of the landfill range from several feet below mean sea level to approximately 65 feet above mean sea level. The maximum permitted height for material to be placed in the landfill is 65 feet.

An earthen berm that is covered with grass for erosion protection has existed for several years around the landfill. The berm was constructed to an elevation of approximately 9 feet to prevent run-off of any storm water from the site and to prevent run-on of water into the site. All storm water that falls within the limits of the site drains to an on-site pond and is sampled prior to discharge over the berm with a manually operated pump. This methodology ensures that only storm water which meets all required standards is discharged from the site.

The earthen berm located around the perimeter of the landfill is designed to protect the landfill from a 100-year storm. Access to the facility is via an area that is naturally high such that travel over a man-made berm is not necessary.

2. Is the site hurricane vulnerable?

- a. Is the site in an area subject to storm surge?
- b. What are the design storm specifications?
- c. Should damage from wave action be considered?
- d. For what levels of wind speed is the facility designed?

As previously stated, an earthen berm exists around the perimeter of Slidell Landfill and is constructed to a height of approximately 9 feet, coinciding with the 100 year flood elevation for the site. The site is not considered to be vulnerable to hurricanes, however, the storm surge from Hurricane Katrina inundated the site in conjunction with the inundation of entire parishes. No environmental impacts occurred at the facility as a result of Hurricane Katrina

and the landfill was operational in conjunction with clean-up efforts within a few days of the occurrence of Hurricane Katrina. It should be noted that the landfill was instrumental regarding the disposal of construction and demolition debris/wood waste in the aftermath of Hurricane Katrina.

Damage from wave action is not considered to be a threat to operations at Slidell Landfill. In addition, high winds would not result in any environmental concerns at the landfill. Buildings located at the facility are designed in accordance with local and state requirements with regard to wind speeds.

E. Is groundwater protected?

1. Are aquifers or recharge area underlying the site used for drinking water?
2. What is the relationship of the site to the water table?
3. What wells exist in the area?
4. What is the flow rate and direction of the groundwater flow?
5. What is the groundwater quality in the underlying aquifers?
6. Is there a hydraulic connection between the aquifers?

The risk of adverse impacts to drinking water resources in the vicinity of Slidell Landfill is minimal due to the nature of the waste received at Slidell Landfill, and due to the existence of relatively impermeable soils beneath Slidell Landfill. In the previously referenced BFD issued by the LDEQ for Slidell Landfill, the LDEQ noted that leachate "is not a concern at this facility". The LDEQ further noted that, as construction and demolition debris is generally considered non-water soluble, "it is unlikely that significant constituent concentrations will be present".

There are no known aquifer recharge areas located in the vicinity of Slidell Landfill. Shallow groundwater has been observed during placement of geotechnical borings on the Slidell Landfill site at depths ranging from 5-20 feet below ground surface. The shallow groundwater is not of drinking water quality and would not be expected to provide any sustainable yield. One boring has been drilled to a depth of 60 feet below ground surface at the Slidell Landfill site. The boring consisted predominately of low permeability clays to a depth of 50 feet which is approximately 20 feet below the bottom depth of the disposal cells.

According to information obtained from the Louisiana Department of Transportation and Development (DOTD) Water Resources Division web site, 19 registered water wells are located within 0.2 miles of Slidell Landfill. Of these wells, one is listed as a monitor well with a depth of 16 feet, one is listed as an industrial well with a depth of 255 feet, 12 are listed as domestic wells with depths ranging from 210 feet to 660 feet, and five are listed as public supply wells with depths ranging from 270 feet to 730 feet.

Based on a study performed by the LDEQ and entitled "Estimates of Groundwater Velocities in Louisiana Aquifers", average horizontal groundwater flow rates in Louisiana aquifers (less than 1000 feet in depth) range from 89 feet per year to 484 feet per year. A separate publication published by the USGS entitled "Louisiana Ground-Water Map No. 17:..." provides data regarding deep aquifers in the Slidell area designated as the 1500-foot and the 1700-foot sands. The Kentwood Aquifer is a subset of the 1500-foot sand. The study states that flow in these aquifers is generally towards the Baton Rouge area as a result of significant pumpage in the area. However, the study states that a generally south-southwest direction of flow is observed in the Slidell area due to groundwater withdrawal activities in the southern portion of St. Tammany Parish. Shallow aquifers in the Slidell area would be influenced to a lesser degree due to pumping activities and are likely influenced by seasonal influences associated with rainfall events and river/lake levels.

Based on information viewed on the DOTD Water Resources Division website, aquifers of drinking water quality are screened at depths of greater than 200 feet below ground surface in the Slidell area. A publication by the U.S. Department of Agriculture entitled "Soil Survey of St. Tammany Parish, Louisiana" states that "Wells generally range in depth from 400 to 2400 feet; the deepest is about 2800 feet. Industrial wells have an average yield of about 1,000 gallons per minute (gpm). The largest yield is a municipal supply well at Slidell with a flow rate of 3200 gpm." The previously referenced USGS study indicates that the clay layers separating the 1500-foot and 1700-foot sands are not impermeable.

F. Does prospective site pose potential health risks as defined by proximity to:

- 1. Prime agricultural area (crop or pasture land)**
- 2. Residential area**
- 3. Schools or day care centers**
- 4. Hospitals or prisons**
- 5. Public buildings or entertainment facilities**
- 6. Food storage area**
- 7. Existing community health problems that may be aggravated by operation of additional hazardous waste disposal capacity**

Due to the nature of materials disposed at Slidell Landfill, the site is not considered to represent a health risk to the community. The site is located in an industrial zoned area and is bordered predominately by commercial and/or industrial businesses. A mobile home park is located east of the facility and a relatively new residential development is located to the south. No prime agricultural property, schools or day care centers, public buildings or entertainment facilities, or food storage areas are located immediately adjacent to Slidell Landfill. There are no known community health problems that may be aggravated by the operations of Slidell Landfill, and no hazardous waste disposal activities are performed at the site.

G. Is air quality protected?

1. Is the site within an ozone or non-attainment area?
2. What contaminants are likely to be generated at the site?
3. What protection is afforded from each contaminant generated by the site?
4. What is the potential for unregulated emissions?
5. What plans are implemented to provide for odor control?
6. Who will be affected by emissions?
 - a. What is the direction of the prevailing winds?
 - b. Describe the expected frequency of "bad air" conditions.
7. Describe the control of vapors at various stage of process.

The potential adverse environmental impacts to air quality resulting from operations at Slidell Landfill are minimal. The only known potential air quality effects posed by the facility are associated with odor and/or dust (particulate) emissions. Due to the nature of the materials being disposed, offensive odors are generally not observed. Placement of clay cover over exposed materials at a minimum frequency of once every 30 days, and more often if necessary, serves to eliminate any potential odor concerns. While the potential for dust emissions is present, application of water and enforcement of slow speeds within the landfill during dry conditions serves to minimize this potential adverse impact.

The site is not located in an ozone or non-attainment zone. As previously stated, particulates/dust represent the only known contaminants to be generated at the site due to the nature of materials disposed. Protection from particulates/dust include the use of water trucks and observance of speed limits within the facility. The potential for unregulated emissions is minimal, and potential odor concerns are minimal due to reasons previously cited.

Potential effected parties due to dust emissions predominately include the automobile dealerships located north of the facility. Prevailing wind direction at the facility is from the southeast. Again, effective dust control is obtained through the use of water trucks and vehicle speed control.

No "bad air" conditions have been associated with Slidell Landfill in the past and none are anticipated. Due to the nature of materials disposed, vapor issues are generally not a concern.

H. Have physical site characteristics been studied; what has been done in terms of a geotechnical investigation?

- | | |
|--------------------|------------------------|
| 1. Site geology | 5. Aquifer location |
| 2. Hydrology | 6. Subsidence problems |
| 3. Topography | 7. Climatic conditions |
| 4. Soil properties | |

Slidell Landfill is an existing, permitted Type III landfill. Whereas all proposed disposal cells have been excavated and material has been disposed in all cells, future disruption to the existing physical characteristics at the site will be minimal. The remaining life of the facility will be utilized in conjunction with the filling of existing disposal cells as required to achieve appropriate grades and slopes.

Site characteristics associated with geology, hydrology, topography, soil properties, aquifer locations, and climate conditions have been addressed and are as previously discussed herein. Each of these characteristics, as previously shown, is favorable to the operations of Slidell Landfill. With regard to subsidence problems, none have been experienced over the life of the existing landfill and none are anticipated.

V. Are there mitigating measures which would offer more protection to the environment than the facility as proposed without unduly curtailing non-environmental benefits?

As noted in the LDEQ's BFD for Slidell Landfill's prior permit modification, "The Department finds that there are no other mitigating measures which would offer more protection to the environment than the facility, as proposed, without unduly curtailing non-environmental benefits."

A review of the environmental control systems currently in place at Slidell Landfill supports the LDEQ's conclusions in this matter. Mitigating measures that are currently in use at Slidell Landfill have been previously discussed and are outlined in detail in conjunction with prior submittals to the LDEQ. As such, they will not be repeated herein. However, it should be noted that continued operation of the landfill is in itself a mitigating measure. A properly managed, regulated Type III waste disposal facility such as Slidell Landfill mitigates against illegal open or promiscuous dumping in the area. The LDEQ notes in its BFD that "The Department find no additional device, system, or procedure that would provide any greater environmental protection than that which is presently incorporated into the design and permit requirements of the facility." A few of the mitigating measures associated with Slidell Landfill that are worthy of emphasis include:

- a. The facility is located in a commercial area which is zoned M-2 (Intermediate Industrial).
- b. The facility is located adjacent to Coastal Waste Services, a municipal solid waste pick-up station.
- c. Multiple commercial establishments, such as car dealerships and other businesses, line Interstate 10 and Howze Beach Lane, partially obscuring the facility from view.
- d. The waste received by the facility is construction and demolition debris and woodwaste. No putrescible waste, with its associated odors and potential for disease, is accepted.
- e. Quality controls systems, such as inspections of incoming vehicles and loads, ensure that no putrescible waste is received. These systems also ensure that no other types of prohibited wastes are received.
- f. The site is underlain by low permeability clays.
- g. A Stormwater Pollution Prevention Plan is in place for the facility which requires, among other things, that "best management practices" be followed by the facility. The SWPPP and the best management practices assist in ensuring that discharges from the site are in accordance with the facility's LPDES permit.

- h. The facility possesses a valid LPDES permit regulating discharges from the facility. Voluntary procedures in place at the facility, including those required by the water discharge permit, ensure that all discharges are closely monitored.
- i. Issuance of the subject LPDES permit will not impact wetlands in any way.
- j. The facility is inspected daily by on-site personnel. Periodic independent inspections are also performed by an independent environmental engineering firm. A Preventative Maintenance/Compliance Evaluation Form is completed on a daily basis, copies of which are submitted to the LDEQ on a weekly basis.

A. Is this facility part of a master plan to provide waste management? Whose plan?

- 1. How does it fit into the plan?
- 2. What geographical area is served by the plan?

The parish of St. Tammany has contracted with the firm of Camp, Dresser, and McKee (CDM) to prepare a "Solid Waste Management Implementation Plan" (The Plan) for the parish. A draft copy of The Plan has been submitted to the Parish and is dated February 11, 2009. Excerpts from The Plan have been included as Appendix D.

As noted in the Executive Summary of The Plan, in St. Tammany Parish "The population has grown by 20% between 2000 and 2006 with expected growth of over 35% over the next 20 years. With this population growth comes an increase in waste volume of Municipal Solid Waste (MSN) and Construction and Demolition Waste (C&D) including yard waste and potential recyclables." The Plan further states that "The principle need for St. Tammany Parish's solid waste management plan is the development of a C&D disposal facility... with rising costs in fuel, transporting this waste out of the Parish is not economical.. This component must be first priority for St. Tammany Parish."

The geographical area served by Slidell Landfill is unlimited.

B. Does this facility fit into an integrated waste management system? (reduction, recovery, recycling, sales tax, exchange, storage, treatment, disposal).

- 1. On-site
- 2. Regional

Slidell Landfill performs on-site disposal of construction and demolition debris/wood waste only. Treatment and storage are not performed on-site. Slidell Landfill, as a result of its unlimited permitted service area, provides a positive impact to the region through proper disposal of non-hazardous wastes and through generation of the significant economic impacts previously discussed.

C. Can waste be disposed in another fashion (way)?

1. Technology limitations
2. Cost factors
3. Other reasons

The alternative technologies of recycling and incineration were evaluated. However, as noted below, this type of waste is not suitable for such technology.

One alternative to landfilling is the recycling of Type III waste. However, in order to effectively recycle the waste, it would need to be sorted and stored prior to recycling. Traditionally, costs associated with these labor-intensive operations prohibit this option. Additionally, much of the Type III waste, such as demolition materials (e.g., sheetrock), do not easily lend themselves to recycling technologies.

A second alternative is incineration. However, much of this type of waste, particularly concrete and plastic, does not readily lend itself to incineration, thus ruling out this option. Additionally, air emissions associated with this option would likely create unnecessary and undesirable environmental concerns.

D. What quality assurance control will be utilized to protect the environment?

1. Plans for lab work
2. How are out-of-spec wastes handled
3. What happens to rejected wastes
4. Treatment stabilization
5. Segregation of noncompatible wastes
6. Handling of containerized wastes

Numerous quality assurance control mechanisms are currently in-place at Slidell Landfill to protect the environment. These mechanisms include, but are not limited to: the use of office check-in personnel with video recording cameras and spotters to ensure the acceptability of materials being disposed; storm water controls including maintenance of perimeter levees and an on-site storm water holding pond; sampling of storm water runoff prior to discharge, and sampling of storm water during discharge; placement of clay cover on all exposed materials at minimum intervals of every 30 days; use of water trucks and speed reduction devices to control dust emissions; performance of daily site audits that are submitted to the LDEQ on a weekly basis; and performance of periodic site audits by an independent environmental engineering firm.

No lab work is required due to the nature of materials disposed at Slidell Landfill. Unacceptable wastes are not accepted for disposal in the landfill. Any unacceptable wastes observed subsequent to unloading are returned to the hauler or are transported to an appropriate offsite recycling/disposal facility. No treatment stabilization, segregation of non-compatible wastes, or handling of containerized wastes is applicable to the site.

E. Innovative techniques used to control release of waste or waste constituents into the environment.

- 1. Surface impoundment**
- 2. Land application treatment**
- 3. Landfill (burial)**
- 4. Incinerator**
- 5. Container storage**
- 6. Tanks**

Due to the nature of wastes disposed by Slidell Landfill, the potential for release of waste or waste constituents to the environment is minimal. Innovative techniques employed by Slidell Landfill include the routing of all storm water to a surface impoundment/holding pond. Water in the pond is sampled prior to discharge to ensure compliance with all applicable discharge limitations. No land application, incineration, or storage of containers/tanks is performed on the site. Landfilling of materials received by the facility is performed in compliance with applicable solid waste regulations, LPDES discharge permit requirements, and in accordance with the quality assurance procedures previously discussed.

APPENDIX A

RESPONSE TO "IT" QUESTIONS SUBMITTED IN CONJUNCTION WITH SLIDELL LANDFILL, L.L.C.'S MAJOR PERMIT MODIFICATION APPLICATION OCTOBER, 2004 (REVISED APRIL, 2006)

RESPONSE TO "TT QUESTIONS"

(And LAC 33:VII.523)

Submitted in Conjunction with Slidell Landfill, L.L.C.'s
Major Permit Modification Application
October, 2004 (Revised April 2006)

INTRODUCTION

This submittal is made in support of the request by Slidell Landfill, L.L.C. ("Slidell Landfill") to modify its existing solid waste permit, No. P-0345. Slidell Landfill has submitted a Major Permit Modification Application, dated October, 2004, as revised March 2005 (the "Application"). Essentially, Slidell Landfill seeks to join the newer portions of the facility permitted in September, 2000, with older portions of the facility, thus creating a fully permitted, environmentally protective Type III waste disposal facility. Slidell Landfill will, thus, be able to accommodate all of the Type III waste disposal needs of the residents of St. Tammany Parish for years to come.

Currently, Slidell Landfill is fully permitted to dispose of Type III waste (construction and demolition debris and woodwaste) at its facility in Slidell, Louisiana. As originally permitted in September, 2000, the life span of the landfill was approximately ten to twenty years, given the permitted final contours of the landfill. However, Hurricane Katrina radically altered this timetable. Because of the huge volume of Type III and other approved hurricane-debris, the landfill has nearly reached its capacity under its current permit. At the time of this submittal, the lifespan of the landfill is no longer measured in years, but rather weeks. Granting this modification is essential to assuring that St. Tammany Parish has adequate capacity in the future to safely dispose of Type III waste in a manner most protective of the environment.

SECTION 523 AND THE 'TT QUESTIONS'

The "TT Questions" are made an integral part of the solid waste permit application process through LAC 33:VII.523, which requires that permit applications contain responses to the specific questions in order to facilitate the evaluation of the application. The "TT Questions" themselves, which are embodied in Section 523, evolve from the Louisiana Constitution of 1974, Art. IX, Sec. 1, and the principles enunciated by the Louisiana Supreme Court in *Save Ourselves, Inc. v. Louisiana Environmental Control Commission*, 452 So. 2d 1152 (La. 1984), as refined by the Court of Appeals, First Circuit, in *Blackett v. Louisiana Department of Environmental Quality*, 506 So. 2d 749 (La. App. 1 Cir. 1987) and *In re: Rubicon*, 95-0108 (La. App. 1 Cir. 2/14/96), 670 So. 2d 475, rehearing denied, 3/29/96.

The secretary of the Louisiana Department of Environmental Quality ("LDEQ") has been designated as the primary public trustee of the environment. He must consider and follow the will and intent of the Louisiana Constitution of 1974 in making decisions regarding the environment. La. R.S. 30:2014(A)(4). The secretary fulfills his duty as the primary public trustee, and thereby justifies the discretion afforded him in permit decisions, through the consideration and detailing of three broad issues:

- 1) Have the potential and real adverse environmental effects of the project been avoided to the maximum extent possible;
- 2) Does a cost benefit analysis of the environmental impact costs balanced against the social and economic costs demonstrate that the latter outweighs the former; and
- 3) Are there alternative projects, alternative sites, or mitigating measures which offer more protection to the environment than the proposed project without unduly curtailing non-environmental benefits.

Rubicon, 670 So. 2d at p. 483; see also *In re: American Waste and Pollution Control Co.*, 93-3163 (La. 9/15/94) 642 So. 2d 1258, 1266.¹ This submittal will address these three inquiries.

BACKGROUND

Slidell Landfill is a fully permitted solid waste disposal facility, located in St. Tammany Parish at 310 Howze Beach Road in Slidell, Louisiana. Under its current permit, it is allowed to dispose of Type III waste (construction and demolition debris and woodwaste).² The facility is divided into Cell Nos. 1 and No. 2 and an old landfill. Cell Nos. 1 and 2 were permitted by the LDEQ on September 26, 2000 through the issuance of Permit No. P-0345.

Cell No. 2, consisting of approximately 16.5 acres and approximately 900,000 cubic yards of capacity, began receiving Type III waste after the appropriate LDEQ approval was received in April, 2002. Since Hurricane Katrina, Cell No. 2 may have reached its permitted capacity and height allowance.

Cell No. 1, consisting of approximately 9 acres and approximately 600,000 cubic yards of capacity, was not fully constructed at that time. After Hurricane Katrina, construction work was completed and proper authorization was provided by LDEQ to use Cell No. 1 for the disposal of hurricane-debris and Type III waste. The capacity of Cell No. 1 is limited. At the current rate of receipt, Cell No. 1 will soon reach its permitted capacity and height allowance.

Directly south of, and abutting, the current landfill is located what is commonly referred to as the 'old landfill,' which is approximately 20 acres in size. It is part of the landfill known as the Johnny F. Smith Construction and Demolition Debris Landfill. The landfill ceased accepting waste around April, 2002. The old landfill is under an Order to Close, No. 0246-A-2, issued by the LDEQ.

In the September 26, 2000 permitting of Cell Nos. 1 and 2, LDEQ provided a Basis for Decision ("BFD") in which was performed an extensive and comprehensive analysis of the "IT Questions," a review of the landfill's compliance history, and a capacity determination. The BFD is attached hereto and made a part hereof as Attachment A. After reviewing the application, the administrative record, and an opposing comment to the application, the LDEQ concluded in the BFD that potential adverse environmental impacts were minimized to the maximum extent

¹ Section 523 separates Issue 3 into three distinct inquiries.

² Pursuant to the various Emergency Declarations and Administrative Orders issued by LDEQ in response to Hurricane Katrina, Slidell Landfill is also authorized to receive 'hurricane-debris,' as that term is defined, during the pendency of the emergency.

possible, that the social and economic benefits of the facility outweighed any potential environmental impacts, and that no alternative sites, projects, or mitigating measures offered more protection to the environment than the proposed project without unduly curtailing non-environmental benefits. The LDEQ specifically found that the project "will be protective of human health and the environment and hereby issues Standard Permit P-0345." BFD, p. 12. Slidell Landfill maintains that the LDEQ's decision is still correct and amply supported by existing facts.

Although Slidell Landfill received substantial damage during Hurricane Katrina, protective measures incorporated in the facility operation allowed Slidell Landfill to recover and play an integral role in the regional recovery effort. Since the hurricane, it has received approximately 1.5 million cubic yards of waste for disposal. Obviously, such a large volume required the invocation of the provisions of the various Declarations of Emergency and Administrative Orders (the "Emergency Order"). Specifically, the Emergency Order allowed permitted facilities to accept hurricane debris for disposal without the need to first modify existing permits as a means addressing the increased demand for capacity arising from the storm event. Additionally, though, the Emergency Order required that a permit modification addressing long-term changes on operations and disposal which occurred during the emergency be submitted no later than the expiration of the latest Emergency Order.

The current application, although it was initially submitted prior to Hurricane Katrina, is also intended to address the changes to operations and disposal that occurred as a result of the hurricane. Essentially, the application seeks to join the old landfill with the two current cells. The 'airspace' of the landfill will be increased. The current permit allows Cell Nos 1 and 2 to achieve 3:1 slopes, but only up to 19 - 21 feet above mean sea level. The application simply requests that the 3:1 slope be allowed to continue up its natural gradient to a height of approximately 130 feet above mean sea level. Additionally, the horizontal 'footprint' of the three cells will not be substantially increased. Essentially, the expansion of the horizontal 'footprint' will occur within the perimeter levees of the landfill.

PRELIMINARY CONSIDERATIONS

Before an in-depth discussion of the 'IT Questions' is undertaken, several important preliminary considerations should be noted. As the 'IT Questions' are reviewed, it is suggested that these considerations be kept in mind.

As mentioned above, the BFD is a comprehensive analysis of the 'IT Questions' as they applied to the prior expansion of the facility from the old landfill into the currently permitted Cell Nos. 1 and 2. The analysis, facts, and conclusions set forth in the BFD have changed little since its issuance in September, 2000, except perhaps that the facility has become even more environmentally protective (as highlighted in subsequent sections). In brief summary, extensive work has been conducted at the facility, in partnership with the U. S. Corps of Engineers and LDEQ, to enhance the perimeter levees and route the flow of water to a central holding area, from which all water will be subject to a rigorous pre-discharge sampling and analysis program. Additionally, a new and detailed Stormwater Pollution Prevention Plan is a significant supplement to the plans and procedures noted in the BFD and in the application leading to the BFD itself. The rationale and basis for granting the expansion into Cell Nos. 1 and 2 remain as

valid and viable for the present modification, if not more so based on the environmental upgrades, as they were when LDEQ relied on them in the 2000 BFD.

The next consideration is how Slidell Landfill was impacted by Hurricane Katrina. Although Slidell Landfill suffered extensive physical damage to its buildings, equipment, and records, it was able to recover and provide its capacity to satisfy the immediate need for disposal capacity in the wake of Hurricane Katrina. For this reason, it has approached the limits of its permitted capacity. In a short period of time, the length of which depends on the volume of waste received at the facility, Slidell Landfill will be required to begin closure. If this is required, Slidell, St. Tammany and the northshore as a whole will lose the availability of an ideally suited, permitted landfill that can easily manage the volume of Type III waste that will be generated as the area rebuilds. Without Slidell Landfill, LDEQ will be forced to permit other sites, thus purposefully and unnecessarily creating more brownfield locations in an aesthetically pleasing area that takes great pride in its green spaces.

Slidell Landfill is ideally suited for continued use as a disposal facility for a number of reasons. For example, the area in which Slidell Landfill is located is already zoned by St. Tammany Parish as M-2 (Intermediate Industrial). Further, the landfill does not violate any of the local land use requirements. *Id.* Because of the zoning of the area, Slidell Landfill is located in an area of compatible land use. Slidell Landfill is in an area that is already heavily commercial in nature. Multiple commercial establishments, such as car dealerships, buildings, and other businesses, are located along Howze Beach Road. Additionally, Slidell Landfill is located directly adjacent to the Coastal Waste facility, a residential solid waste pick-up station. The current site has been commercial and industrial in nature for some time.

Further, the efficient and continued collection, transportation, and disposal of Type III waste is necessary to maintain and enhance the quality of life enjoyed by residents of St. Tammany Parish. An efficient system ensures that costs are minimized. Slidell Landfill, in providing St. Tammany with such a system for Type III waste, provides a necessary and cost-effective public service for the residents of St. Tammany. Further, having a local option for disposal reduces the tendency for illegal dumping.

Finally, Slidell Landfill has worked cooperatively with LDEQ. It has voluntarily supplied information to the LDEQ and welcomed LDEQ's compliance assistance. Slidell Landfill has gone 'above and beyond' the requirements of the regulations to ensure that every aspect of its day-to-day operations conforms to and exceeds all measures of environmental performance. Slidell Landfill remains committed to this goal.

With the foregoing preliminary consideration established, Slidell Landfill addressed Section 523 in the context of this modification request.

ANALYSIS

1) Have the potential and real adverse environmental effects of the project been avoided to the maximum extent possible?

Yes, the potential and real adverse environmental effects of the project (including impacts to groundwater, surface water, and air quality, aesthetic impacts (visual/noise), safety risks, impacts to surrounding property values, wetlands impacts, and adverse impacts to 'sensitive environmental areas') have been avoided to the maximum extent possible.

LDEQ found as part of the prior expansion that the "potential and real adverse environmental effects of the facility have been avoided to the maximum extent possible." BFD, p. 3. LDEQ reviewed the groundwater and surface water impacts, finding that such media "will be protected" due to, among other things, the monitoring required under the facility's Louisiana Pollution Discharge Elimination System ("LPDES") permit, the lack of leachate generated at a Type III facility, and the predominantly clay barrier existing under the maximum point of excavation BFD, p. 4. These conditions have not changed at all. Additionally, the LDEQ noted that emissions from the facility "pose little threat to the air quality" because Type III waste does not produce methane or create an odor problem. *Id.* Again, these conditions have not changed. Finally, Slidell Landfill proposed and implemented various protective measures, such as waste receipt and acceptance procedures to ensure that inappropriate waste is not disposed at the facility and a fire and safety program. Yet again, these procedures and programs are still in effect and used at the facility. Considering these additional "protective measures," LDEQ found the "adverse environmental impacts to groundwater, surface-water, and air have been minimized." BFD, p. 5. The facts and circumstances supporting the issuance of the BFD have not changed over the last several years. The conclusions in the BFD that supported the expansion of the facility are clearly applicable and relevant to the current expansion.

The BFD reviewed groundwater, surface water, and air quality impacts and correctly concluded that protective measures were in place to minimize those impacts to the maximum extent possible. This analysis will list and consider not only impacts to groundwater, surface water, and air quality, but also will go well beyond those impacts and evaluate additional potential adverse environmental effects, including aesthetic impacts (visual/noise), safety risks, impacts to surrounding property values, wetlands impacts, and adverse impacts to 'sensitive environmental areas.'

Surface Water Impacts

The potential surface water impacts from the facility that may occur as a result of facility operations include direct discharges through permitted outfalls, spills, and run-off. The BFD found that surface water discharges would be minimized as the discharges would be monitored in accordance with the LPDES permit.

The facility is permitted to discharge to surface waters pursuant to LPDES Permit No. LA0105465. The permit was issued on December 7, 1999, effective January 1, 2000. A timely renewal was submitted and has been deemed administratively complete.

Water in Cell No. 1 is now routed to Cell No. 2 for discharge through Outfall 002. Cell No. 2 also discharges through Outfall 002. Outfalls 003 and 004 (the sanitary discharges and the equipment and vehicle wash discharges) flow into Cell No. 1, for ultimate discharge through Outfall 002, as mentioned above. Outfalls 003 and 004 are sampled prior to their discharge into Cell No. 1. Thus, all discharges from the facility are subject to voluntarily procedures noted below.

The discharges from the facility consist primarily of stormwater, only a small portion of which has actually contacted the Type III waste. Outfalls 001 and 002 flow into an unnamed ditch, then into an unnamed canal, then into Schnieder Bayou, and ultimately into Lake Pontchartrain. There are no drinking water uptakes in the area, nor is the unnamed canal and Schnieder Bayou designated as scenic waterways. In fact, there are no scenic streams or critical habitats in the area which may receive the facility's surface water discharges.

Since LDEQ's September, 2000 approval of the expansion into the facility's currently permitted footprint, and the favorable conclusions in the associated BFD, there have been recent significant upgrades to the facility's operations and procedures which make potential adverse impacts to surface water even less likely. Within the last year and a half, the facility has voluntarily upgraded the facility, adopted more stringent discharge limitations and procedures, and updated plans have been implemented.

Facility Upgrades

In close coordination with the U. S. Corps of Engineers ("Corps" or "COE") and LDEQ, Slidell Landfill has performed, and continues to perform, work at the facility that is designed to substantially upgrade the facility so that even more protection is provided to the surrounding environment. The work encompasses projects at the landfill itself, and also the neighboring Coastal Waste facility. While the work at the landfill itself (i.e., the enhancement of the perimeter levees and the flow of water to a central area for treatment) is significant on its own, the entirety of the project, both at the landfill and the Coastal Waste facility, will be discussed so that a full description of all environmental enhancement will be provided.

Slidell Landfill solicited the input and approval of both the LDEQ and the Corps. Slidell Landfill met with LDEQ on two occasions (one meeting with Permits and another with Enforcement) to discuss and outline the facility enhancement plan. LDEQ favorably received the plan and provided its approval. The Corps itself was extensively consulted and provided its approval. Thereafter, the work began and, as of the date of this submittal, continues. Slidell Landfill remains committed, and looks forward, to completing the work in the very near future.

The plan, as presented, consisted of the following items:

1. Reform and build the perimeter levee on the south, west, and east side of the landfill, with the levee joining the existing levee on the east side and running along the entire length of the west side of the landfill.
2. Reform and build the ditch on the inside of the perimeter levee. The bottom and sides of the ditch will be lined with naturally occurring or recompacted clays.

3. Slope and grade the Coastal Waste parking lot such that all water within the inner berm flows into a dedicated pond located to the west of the landfill, outside of the perimeter levee. If necessary, chlorine treatment may be added prior to discharge.
4. Reform and build the perimeter levee surrounding the Coastal Waste site along Schneider Canal and along the existing drainage ditch behind the pick-up station and the shop building.

A perimeter levee exists along the south side of the landfill and generally runs north along the east side of the old landfill cell and Cell No. 2. The levee was/will be reformed along the south and east sides of the landfill to a height of 9.5 feet (the 100-year flood elevation). For most of this area, the levee already exists and the work will only require placing materials on top of the existing feature and, consequently, widening the base to a certain degree. Additionally, a levee will be built along the west side of the landfill. In this way, the entire active portion of the landfill will be sealed within the perimeter levee. The levee will ensure that all water is held on-site for treatment prior to discharge, thus assuring an additional means of controlling the quality of the discharges.

A ditch currently exists on the south side of the landfill, just inside the existing levee. The purpose of the new ditch is to route water to treatment areas to maximize the quality of the discharges. The ditch, with two feet of recompacted or naturally occurring clay at its base, will be re-formed along the south side of the landfill. A high point or ridge will be placed in the ditch in the center of the south side of the old landfill cell, such that water will flow east and west along the south side of the landfill, and eventually flow into the pond in Cell No.2.

A two-part project was proposed for the Coastal Waste property. First, to minimize the amount of water flowing onto the site, the levee along Schneider Canal was reformed and a levee built along the discharge ditch from its intersection with Schneider Canal. Second, to ensure that potentially contaminated water that is generated on-site may be sampled and properly treated before discharge, the Coastal Waste parking area was/will be bermed, the area sloped and graded, and all water (and other discharges) will be routed to a central pond located west of the landfill (and outside the perimeter levee). These projects reduce the amount of water coming onto the Coastal Waste property (which will decrease the amount of water that ultimately requires treatment and discharge) and will ensure that all discharges from Coastal Waste are properly treated prior to discharge. Reducing the amount of water requiring treatment will ensure that any such treatment is more effective, thus increasing the quality of discharges.

The benefits of this project are clear. During high tide, water backed up in Schneider Canal and the drainage ditch and ultimately flowed onto Coastal Waste property. The increased water amount of water made treatment more difficult. Reducing the amount of water flowing onto the property serves to reduce the amount requiring treatment, thus increasing the likelihood of higher quality discharges. To accomplish this, the current levee along Schneider Canal was reformed to the 9.5 feet height, matching the Slidell levee. Additionally, the levee was built along the drainage ditch from its intersection with Schneider Canal to a point where the existing elevation equals 9.5 feet. A reduction in the amount of water requiring treatment coupled with use of a central treatment pond ensures discharges from the site will be more than adequately treated and exceed required treatment.

The current parking area was surrounded by an inner berm and the area within the inner berm was sloped and graded such that all water was routed to a central pond, which will be located west of the landfill and outside of the perimeter levee. The Coastal Waste pond will receive only water routed to it from Coastal Waste (although eventually it may receive the discharges from Outfalls 003 and 004 from Slidell Landfill). All currently existing discharges (stormwater, washrack, and sanitary) will be routed to the new pond. The sanitary discharge will be routed to the pond after being treated by the sanitary treatment plant currently on-site. Further, if necessary before discharge, all of the water in the pond will be routed through a chlorine contact chamber for further treatment. In this manner, all Coastal Waste discharges will be routed to one central treatment pond and aggressively treated prior to discharge.

The plan to route all discharges to a central pond, coupled with limiting the amount of water entering the pond through reforming and building the levee to halt ingress of tidally influenced water, will positively benefit the surrounding area. The discharges from the Coastal Waste site will be within all permitted limits, thus minimizing any impact to the receiving waters and surrounding area.

Slidell Landfill and Coastal Waste took every available measure to ensure that impacts are minimized. The following is a partial listing of active measures taken by Slidell Landfill and Coastal Waste during the time that these activities are in progress:

1. The majority of the work performed on the perimeter levees simply required placement of additional material on top of the existing levee.
2. No equipment was placed in any stream, bayou, or other watercourse. The equipment was placed on the landfill itself.
3. Hay bales and silt fences (and other best management practices as appropriate) were erected and maintained along the perimeter of the landfill where work was performed so that runoff was minimized.
4. All applicable standards contained in the water quality general permit for construction activities were complied with.
5. The work and equipment placement was documented and monthly progress reports were submitted.

Through these measures, Slidell Landfill enhanced the protection it provides to the environment. The levees and ditches assist in insuring that no water leaves the site that is not properly treated under the facility's LPDES permit, thus assuring a higher quality surface water discharge into the surrounding environment.

Voluntary Procedures

On October 26, 2004, the facility adopted voluntary procedures for discharging stormwater from Outfalls 001 and 002. Slidell Landfill adopted these procedures to ensure the protection of water quality when discharging through Outfalls 001 and 002 as well as to provide LDEQ with information regarding the nature of the discharges from the facility. The procedures were adopted only after consultation with the LDEQ and the adoption of LDEQ's comments into the final version of the procedures. Note that all water from Cell No. 1 is now routed to Cell No. 2.

Thus, all discharges from Cell No. 1 and Cell No. 2 are subject to the procedures established for Outfall 002 and Cell No. 2.

Generally, the Slidell Landfill imposed upon itself two basic obligations: first, it imposed on itself more discharge parameters than those required under its permit, and second, it imposed on itself a strict set of sampling and analysis procedures which must be met prior to any discharge from Outfall 002.

Slidell Landfill imposed on itself additional discharge parameters than those required under its existing permit. Under its existing permit, daily maximum limits are set for oil and grease and total organic carbon ("TOC") and a maximum and minimum limit is set for pH. Several metals are required to be analyzed and reported but no numerical limit is set. Flow is to be estimated and reported. Under the LPDES General Permit for Construction/Demolition Debris and Woodwaste Landfills (LAG780000, effective September 1, 2001), additional parameters are required that are not found in the facility's existing permit: Total Suspended Solids ("TSS"), Biological Oxygen Demand ("BOD"), ammonia, alpha terpineol, benzoic acid, p-cresol, and phenol. A numerical limit is set for zinc (collectively, the 'self-imposed limits').³ Each parameter has a numeric discharge limit. The facility voluntarily adopted these additional limits.

Slidell Landfill also imposed on itself a strict set of sampling and analysis procedures which must be met prior to any discharge from Outfall 002. In general terms, a sample is taken of stormwater awaiting discharge in Cell No. 2 and analyzed for all of the parameters noted above. If the analysis establishes that permit limits and the self-imposed limits are met, then there may be a discharge from Outfall 002. If, however, the sample of the accumulated stormwater awaiting discharge indicates that any of the limits are not met, then treatment will be done until the stormwater is tested and meets all applicable limitations. In this fashion, there is assurance that permit limits and self-imposed limits are met prior to discharge. Additionally, a sample of the actual discharge is taken and analyzed. If the discharge sample shows any non-compliance, the discharge will cease. As water from Cell No. 1 is routed to Cell No. 2 for discharge through Outfall 002, the procedures for discharges from Outfall 001 and Cell No. 1 are no longer utilized. All water from Cell No. 1 is subject to the procedures noted for Cell No. 2 and Outfall 002.

Through the adoption and implementation of these voluntary procedures, Slidell Landfill minimizes the possibility that any of its discharges impact surface water. Additionally, Slidell Landfill has implemented even further environmentally protective measures, outlined below, that greatly minimize the possibility that contaminants will impact a surface water discharge.

The SWPPP

In December, 2004, a Stormwater Pollution Prevention Plan, a Spill Prevention, Control, and Countermeasures Plan, and Best Management Practices Plan (collectively, the "SWPPP").

³ LDEQ issued an Administrative Order requiring the sampling of only BOD. However, even though the action was stayed by a request for hearing, Slidell Landfill imposed on its self the voluntary procedures outlined herein.

were formally instituted at the facility. The purpose of these plans (which were combined in a single, comprehensive document) is to minimize, prevent, and control the pollution of stormwater discharges. By doing so, the facility thereby minimizes, prevents, and controls the pollutants that may eventually be contained in a discharge from Outfalls 001 and 002.

The SWPPP is a comprehensive document that segregates the facility into five main areas, identifies the possible pollution sources in each, and then details the best management practices and procedures employed by the facility to prevent pollutants from entering stormwater. Various best management practices have been adopted by the facility.

The best management practices reduce spills at the facility. For example, vehicles hauling materials with the potential to drop or track materials are monitored closely. If material does fall from the vehicle, it is promptly cleaned up. Additionally, oils and other such materials are located inside secondary containment or placed on top of containment pallets. Lids and container openings are kept closed when not in use. If spills do occur, then sorbent material is promptly used and disposed of properly. When equipment is serviced, drip pans and absorbent pads are used.

Other best management practices prevent soil erosion. For example, erosion from bare or recently disturbed areas is minimized through planting of seasonal grass or other erosion control measures. Hay bales and silt fences are utilized if significant erosion is anticipated. These practices minimize the amount of solids entering stormwater and thus the pollutants that may enter surface waters.

Other best management practices prevent the creation of leachate. A twelve-inch layer of clay is placed over the exposed material every thirty days. The clay layer prevents precipitation from contacting the Type III waste, thus reducing the possible pollutants that may enter stormwater.

The SWPPP reduces pollutants entering stormwater. In this manner, it reduces the pollutants that may be discharged into the surface waters.

Groundwater Impacts

The potential does exist for groundwater contamination from the operation of the facility. However, the potential risk of impact is minimal based on the nature of the waste received at the facility. To the extent there is a risk of an adverse impact, the risk is minimized to the maximum extent possible because the clay underneath the site will reduce any impacts to groundwater and operational plans will reduce spills.

The facility is located above the southeastern corner of the Prairie Terrace aquifer. There are no known drinking water wells in the vicinity. Area water is generally provided by the City of Slidell or the Parish of St. Tammany.

The nature of the waste received and handled at the facility reduces any potential effect to groundwater. Slidell Landfill accepts only Type III waste, which is defined as construction and demolition debris and woodwaste. By its very nature, Type III waste poses less risk to the environment than municipal solid waste or industrial wastes. Unlike industrial wastes, hazardous

wastes, or even municipal solid wastes, Type III waste simply does not contain similar types or levels of harmful constituents or materials.

LDEQ concurs in this assessment. In the BFD, LDEQ stated that leachate "is not a concern at this facility." BFD, at p. 4. LDEQ noted that, as construction and demolition debris is generally considered non-water soluble, "it is unlikely that significant constituents concentrations will be present." *Id.* Thus, the type of waste received minimizes impacts to groundwater.

The facility also has in place a waste acceptance plan which ensures that only Type III waste is received and disposed of at the facility. Upon arrival at the facility, the material proceeds through a weigh station where the paperwork is checked to determine if the material is noted to be anything other than Type III waste. Once cleared, the load proceeds to the landfill where the deposition of each load is observed. If any material is observed in the load that is not approved or allowed to be disposed of at the facility, it is returned to the customer or placed in a roll-off bin for removal and proper disposal.

Even if Type III waste could be considered to pose a risk to groundwater, the underlying soil is sufficiently impervious to prevent impact to groundwater. Underlying the facility is a natural, predominately clay barrier that is at least five feet thick. The nature of the underlying soils have been documented by the facility on two occasions.

In November, 1997, Soil Testing Engineers, Inc. ("Soil Test") conducted a site investigation in which numerous soil borings were obtained from Cell Nos. 1 and 2 and the side slopes of Cell No. 2. Five soil borings were taken from the bottom of Cell No. 2 and four samples were taken from the side slopes of that cell. Additionally, three soil borings were taken from Cell No. 1 to a depth of thirty feet. The investigation revealed that a low permeable clay exists below the facility. LDEQ, in its BFD, concluded that the clay barrier will "significantly reduce the potential for surface spills to impact groundwater." BFD, at p. 4.

A new study was completed in February, 2005 by Soil Test. The results of the study reinforce and support the prior study. Soil Test concludes that the site is underlain with "stiff clays and silty clays."

Finally, there are operational practices that reduce potential impacts to groundwater. As stated above, the facility has in place an SWPPP which will serve to reduce or prevent spills from even occurring. If they do occur, the SWPPP ensures that they are cleaned-up very quickly prior to the time they could pose a risk to groundwater. Additionally, all fuel tanks, used oil tanks, or other such tanks or containers storing similar substances which could impact groundwater all have sufficient secondary containment. The containment acts as a barrier, preventing these materials ever spilling on the ground and potentially entering groundwater. Instead, spills are held inside the containment, cleaned-up, and disposed of properly.

Air Quality Impacts

The potential adverse effects to air quality posed by the facility include odor and particulate (dust) emissions. Because of the nature of the waste received and the operational practices of the facility, these potential effects are minimized to the maximum extent possible.

As Type III waste generally does not create odor problems, there is little reason to expect that such a problem will exist at the facility. LDEQ concurs, noting that there "is little or no odor problem." BFD, at p. 4. Unlike municipal solid waste, Type III waste is not bio-degradable and methane gas will not be created in appreciable quantities. Although the potential for the creation of dust is present, frequent mechanized sweeping, application of water, and the observance of speed limits will all serve to minimize this potential adverse impact.

LDEQ stated that the facility poses "little threat to the air quality of area residents and businesses." *Id.* Although specifically referring to the creation of methane gas, LDEQ's conclusion validly and equally applies to all aspects of the facility's operations.

Aesthetic Impacts (Visual/Noise)

For this analysis, aesthetic impacts include visual impacts and noise. However, industrial zoning and certain operational restrictions serve to reduce these potential aesthetic impacts to the maximum extent possible.

The area's M2 - Intermediate Industrial zoning creates an industrial and commercial corridor along Howze Beach Road, which runs parallel to Interstate 10. The facility lies partially shielded behind this row of business establishments. In terms of the potential aesthetic impacts, this relative isolation has several positive aspects. First, the industrial setting (e.g., the Delgado Community College and multiple car dealerships) may act to shield the bulk of the facility from view. Second, the traffic on Howze Beach Road and Interstate 10 creates a constant backdrop of noise over which it is virtually impossible to hear any sound or noise emanating from the facility.

The facility is shielded from its surroundings. All facility operations are set-back fifty feet from the property line, creating a buffer zone from its neighbors. Additionally, in normal conditions, no work is conducted after approximately 5:00 p.m. Thus, all noise is eliminated from the facility after that time. The cessation of activities at that time also serves to ensure that nighttime lighting is not a concern to any neighbor.

Safety Risks

The facility does not pose a safety risk, although certain potential impacts are possible. These potential impacts include vector concerns, explosion, or fire. Based on the type of waste received and the operational plans and procedures in place at the facility, these potential impacts are minimized to the maximum extent possible.

Type III waste is not putrescible and does not contain items that could attract disease vectors, such as flies or rats. Additionally, no waste is received that could potentially produce an explosive situation or problem. Practices and procedures are currently in place in which incoming materials are monitored and potentially problematic materials are either returned to the generator or segregated for proper disposal elsewhere. Thus, the nature of the waste and operational practices preclude these adverse impacts.

As with any ongoing activity, the prevention of fires, and immediate reaction to any that do occur, is a high-priority concern. The facility has implemented comprehensive fire prevention and reaction plans which minimize this potential impact.

Fires, open flames, or smoking are simply not allowed in the landfill. Additionally, the above-mentioned procedures regulating the receipt and acceptance of materials for disposal will identify any smoldering or potentially self-igniting materials, which will be immediately dealt with by facility personnel.

The facility has a Fire and Safety Plan. If a fire does occur, prompt reaction and action is assured. First, normal operations will cease and all efforts focused on identifying the exact source and character of the fire. A hazard assessment will be performed. Employees will immediately utilize the fire extinguishers and fire-fighting equipment located on-site. The facility has fire extinguishers, portable water pumps, and ground cover material are on-site. Employees are knowledgeable regarding location and use of the equipment. Concurrently, all appropriate off-site officials will be contacted. Employees will work under the direction of local fire, medical, and other responders upon their arrival. The fire department is located only 1.5 miles away.

In addition to the specific response plans for fires, there are other general safety precautions employed by the facility. First, the facility has a Safety Committee comprised of the Facility Manager, Assistant Facility Manager, and the Operations Manager. The facility manager is also the emergency coordinator. Second, the Safety Committee ensures that the employees are trained in the safety program. Generally, the employees are trained in how to properly and safely perform their jobs, what to do in an emergency situation, and the location and use of fire-fighting equipment. Third, unsafe conditions that may cause fires or other emergencies, such as fueling equipment or a vehicle while it is running, are corrected and reported to a supervisor.

In addition to all of the above precautions, pertinent local authorities have been notified and stated their ability to respond. The local hospital, Northshore Regional Medical Center, has indicated that it has the ability to provide the necessary medical response should a fire or hazardous material incident occur. The local fire department has also indicated its ability to provide all necessary fire-fighting equipment and personnel should the need arise. *Id.* Based on the representations of the local medical facility and fire department, the facility complies with all aspects of La. R.S. 30:2157

Impacts to Surrounding Property Values

One 'non-environmental cost' associated with the facility may be a diminution in property values. In this case, however, property values will not be impacted. The facility adjoins a municipal waste pickup station and is located behind multiple commercial establishments. The closest residential property, which is located on the eastern side of Slidell Landfill, is a series of trailer parks. The trailer parks and the commercial establishments have existed side-by-side with Slidell Landfill for many years without a diminution of property values. There is no evidence to support a claim of any diminution in value due to by the expansion of Slidell Landfill in this already commercialized area.

Wetlands Impacts

Based on the work done by Slidell Landfill, the current modification request does not have a potential effect on existing wetlands as no such actual wetlands exist on the site today where waste disposal will occur. There may have been actual wetlands on-site in the late 1970s when jurisdiction was asserted over wetlands (hereafter called "historic wetlands"). While it is clear that some amount of wetlands did exist at one time on the property, the amount of such wetlands is unknown and may be overstated by even Slidell Landfill's expert. However, because of the activities that occurred under the prior owner, operator, and manager (some of which were specifically approved after wetlands assessment(s) by the U. S. Corps of Engineers on the property), the natural land surfaces, including wetlands, have been transformed through industrial and commercial use. The current owner, operator, and manager was not involved in these decisions and did not become involved in the landfill until 1999 or 2000. Nonetheless, the current owners, operators, and managers are committed to ensuring that all wetlands disturbance on the property are fully and properly mitigated.

Preliminary Considerations

In considering the potential adverse impacts posed to wetlands by the facility, two preliminary points must be made. First, the approval of Cell Nos. 1 and 2 in September, 2000, and the subsequent use of Cell No. 2 in 2002, did not seemingly alter or disturb a single square foot of actual wetlands. Portions of the area had long been used as a borrow pit for such uses as levee construction (generally now Cell No. 1 and parts of the old landfill cell). Aerial photography taken in 1998 confirms that the borrow pit and the old landfill cell were in place, the land had generally been cleared, and the general configuration of Cell No. 2 had taken shape. Thus, actual wetlands were not disturbed in any way as a result of LDEQ's permitting of the two cells in 2000 or the facility's use of Cell No. 2 beginning in 2002 as the contours and general configuration of the facility were in place by that time. The areas along the east side of the landfill, which the Corps has indicated may be wetlands, were not to be used for waste disposal as they were part of existing levees and the buffer zone. Secondly, as with the prior approval mentioned above, the current modification request, when granted, will not alter or disturb a single square foot of actual wetlands where waste disposal will actually occur. The expansion of the facility is mostly vertical in nature as the 'airspace' will be increased through joining of the old and new areas. The horizontal expansion, i.e., the slight enlargement near the approved Coastal Waste pond, occupies cleared areas adjacent to the old 'borrow pit.'

On-site Historic Wetlands

Although no existing, actual wetlands should be disturbed by waste disposal as a result of the requested modification, such may not have been the case at earlier points in the history of the property on which the facility is located. Two assessments of the site, one done by the Corps in 1980 and one recently done by Slidell Landfill, highlight that some amount of wetlands may have existed in the past on the property. However, it is clear from both assessments that the amount of such wetlands is minimal.

In 1980, the Corps conducted an Environmental Assessment on the property and found that only one acre of actual wetlands existed on the assessed portion. At the time, clay from the

site was used as a 'borrow pit' to build and/or upgrade levees as part of the Lake Pontchartrain Hurricane Protection Plan. The original 'borrow pit' on the property (the site of current Cell No. 1) was ending its useful life. An additional source of clay suitable for the project was needed. It was found in the approximately 37 acres adjacent to and directly south of the 'borrow pit' in use (i.e., the area that is now Cell No. 2 and the old landfill cell, which together total approximately 37 acres). The Corps surveyed the site in August, 1980 and found that the excavation of the clay from the new 'borrow pit' "will destroy less than an acre of intermediate marsh and 36 acres of pine forest." Exhibit B: August, 1980, Environmental and Socioeconomic Assessment. The Corps concluded that the "loss of 37 acres of wetlands and pine woods will not have a significant adverse impact of the human environment" and approved the expansion.

The expansion area encompassed 37 acres of an approximately 70 acre site. Only an area of "less than an acre of wetlands" was found in the entire area. *Id.* When the area of the original 'borrow pit' is combined with the 37 acre portion, it is clear that the vast majority of the acreage was not considered wetlands by the regulatory authorities inspecting the site.

In the second assessment, Dana R. Sanders, Ph.D., a wetlands expert, recently completed a full wetlands delineation effort that seems to overstate the amount of wetlands that once existed on-site. Exhibit C. The report, dated December 20, 2004, has been provided to the Corps for its consideration. No formal response from the Corps has yet been received. In Dr. Sanders' report, he correctly differentiates between jurisdictional or 'historic' wetlands (i.e., those that were in existence in 1978 when jurisdiction over wetlands was generally vested in the Corps) and those that may exist today. He notes that no natural land surfaces (i.e., actual wetlands) remain on the site due to forty-five years of activity on the property, such as drainage improvements, excavation of pits, construction of buildings and roads, and deposition of construction waste materials. However, he does conclude that 21.54 acres of jurisdictional or 'historic' wetlands existed on the site around 1978. Of course, between 1978 and 1998, part of the activities mentioned above occurred on the property, leaving the site in such a state such that seemingly no actual wetlands existed on the property by 1998.

As they relate to the landfill itself, Dr. Sanders delineated jurisdictional or 'historic' wetlands stretching from the southern portion of the site (in the area of the old landfill cell) in a generally northwestern direction with a single spur jutting in a northeast direction (into the area permitted as Cell No. 1). The location of the jurisdictional or 'historic' wetlands on the property raises important points relevant to LDEQ's consideration of this issue.

First, the active portions of Cell No. 2 are not located in jurisdictional or 'historic' wetlands. The area along the eastern boundary that is noted as jurisdictional wetlands is seemingly in the buffer zone and is not an area that will receive, or has received, waste for disposal. In regard to the strip of land along the easternmost boundary of the property (which, at this time, is understood to include the levee area along part of Cell No. 2 and areas east of the levee outside of the working area of the landfill), Slidell Landfill is working with the COE to delineate this specific area. Slidell Landfill is willing to voluntarily ensure that no waste is deposited in this area until an 'after-the-fact' permit is obtained, if one is deemed necessary by the COE. Second, the other areas noted as jurisdictional or 'historic' wetlands were developed and exploited well prior to the utilization of this site by the current owners and operators. The old landfill was developed and used for waste disposal at least by the early 1990s. Cell No. 1

was used as a borrow pit for levee building in the 1960s and 1970s. Lastly, Dr. Sanders' delineation highlights (through its finding that no natural surfaces remain) that actual wetlands will not be altered or disturbed in any way by granting the current modification request.

Slidell Landfill's Response

Wetland impacts from the current modification request are non-existent as no actual wetlands should be altered or disturbed. However, jurisdictional or 'historic' wetlands may exist on the property and the current owner and operator are prepared to mitigate or minimize any past harms to actual wetlands. First, upon obtaining knowledge that there was an issue with the Corps regarding wetlands, the facility instituted rigorous land use guidelines and practices to ensure that work is not performed in the areas delineated as jurisdictional wetlands. For example, no earth disturbing activities of any kind were allowed in or close to any area delineated as jurisdictional wetlands by Dr. Sanders. Additionally, even though Cell No. 2 is predominately not jurisdictional wetlands, during this interim period, waste deposition generally occurs away from the eastern boundary of the cell. Second, an 'after-the-fact' permit is being discussed with the Corps. Third, Slidell Landfill and the current owners, operators, or managers are prepared to undertake mitigation activities so that not a single square foot of wetlands will be lost as a result of the operation of this facility over time. Slidell Landfill is prepared to conduct a full mitigation of the 21.54 acres of jurisdictional wetlands (even though the Corps 1980 Assessment concludes that most of such land was classified as non-wetlands). Slidell Landfill, although not able to change the past, is committed to ensuring that, through mitigation, there is no net loss of a single square foot of wetlands. Thus, any adverse impacts from past operations at the facility, if any do exist, will be minimized to the maximum extent possible through mitigation.

Adverse Impacts to 'Sensitive Environmental Areas'

There are no potential impacts to known archaeological sites or historical structures as none are in close proximity to the facility. There are no potential impacts to rare, threatened, or endangered species or critical habitat as none are in close proximity to the facility. There are also no potential impacts to state or federal parks, wildlife refuges, scenic streams, or wildlife management areas. There are no potential impacts to state outdoor recreation facilities as none are in close proximity to the facility.

2) Does a cost benefit analysis of the environmental impact costs balanced against the social and economic costs demonstrate that the latter outweighs the former?

Yes, a cost/benefit analysis demonstrates that the social and economic benefits clearly outweigh any environmental impact costs.

The Basis for Decision

The LDEQ has weighed the costs and benefits of the facility and found that the social and economic benefits of the facility outweigh any potential adverse environmental impacts. The LDEQ noted that Type III landfills in general "are relatively minor operations that present minimal risk." Exhibit A: BED

In weighing the benefits, the LDEQ noted that the facility provided savings in disposal costs for the area, employment to area residents, and tax revenues to state and local governmental bodies. LDEQ also noted that the facility satisfied a need for disposal space that curtailed illegal dumping activities. Finally, LDEQ pointed out that the proposed operation "will provide social and economic benefits to area residents and businesses."

LDEQ concluded its cost-benefit analysis by a clear finding that "the benefits as provided by the proposed facility outweigh the minimal environmental impact costs posed by the proposed facility." Since this finding, no change has occurred which would alter this conclusion.

The Potential Environmental Costs

The potential environmental costs of the facility are outlined above. It should be noted that these costs are 'potential' in nature and may never occur. Facility location and operational parameters, as mentioned above, serve to decrease the likelihood that any such costs will ever be realized.

The Social and Economic Benefits

The benefits of the facility far outweigh any potential environmental costs. To maintain the high quality of life the residents of the Northshore expect and to support the projected growth in the area, there must be an efficient Type III waste disposal system. Slidell Landfill has expended the capital resources necessary to create such a system in order to provide this most basic and necessary social service.

Growth Projections

Prior to the hurricane, Louisiana as a whole was expected to experience a 7.5% population growth over the next twenty five years. The population will grow from approximately 4.47 million people in 2000 to 4.8 million in 2030. Source: U.S. Census Bureau (pre-hurricane). St. Tammany Parish itself has experienced, and will continue to experience, large increases in population. St. Tammany's population is expected to grow from approximately 191,000 in 2000 to approximately 253,000 in 2010. Source: U.S. Census Bureau (pre-hurricane). St. Tammany's population is expected to grow from approximately 191,000 in 2000 to approximately 247,000 in 2020. Source: U.S. Census Bureau (pre-hurricane). Although these census numbers pre-date Hurricane Katrina and no reliable numbers have been presented as of the date of this submittal, there will be a measure of growth in St. Tammany Parish. The St. Tammany Parish government and local chambers of commerce are actively instituting rejuvenation and rebuilding projects designed to lure residents to St. Tammany. Additionally, as existing residents rebuild, continued high volumes of Type III waste can be expected.

The Benefits

The above projections highlight that fact that St. Tammany Parish will rebuild and grow. To accommodate this anticipated growth, Slidell Landfill provides unique services to the construction community, the residents of St. Tammany Parish, and to the environment.

Overall, the benefits include: providing efficient and lower cost disposal services through low capital outlays for future expansion, minimal transportation costs, and disposing of a single type of waste; reducing illegal dumping in open or promiscuous dumps; conforming to the long-range plans of the parish; providing services in emergencies and disasters; and stimulating the local economy. Each will be discussed in turn.

Lower Disposal Costs

The expansion of Slidell Landfill offers the benefit of providing more efficient and lower cost disposal services through low capital outlays for future expansion, minimal transportation costs, and disposing of a single type of waste.

First, the current expansion request will result in minimal capital outlays. On the other hand, constructing an entirely new facility to handle the expected growth or needs of St. Tammany will require vast expenditures of capital for property acquisition and site development, all of which must be recouped by the developer and which inevitably leads to higher disposal costs.

Second, to accommodate the growth and rebuilding needs in St. Tammany, residential homes, commercial buildings, and industrial facilities will be constructed. Slidell Landfill offers a local option to local builders, allowing them to properly dispose of Type III waste in a cost effective manner. Transportation costs are minimized as local builders will not have to transport their Type III waste long distances, with the associated increase in transportation costs. These cost savings are, in turn, passed on to consumers in the form of lower construction prices.

Currently, there are no permitted Type III landfills in the area of St. Tammany Parish. There are three other possible disposal sites. The Amid Landfill (which may now be permanently closed) and the Greater Metro Landfill are 40 or more miles away. A new Type III landfill, Highway 90 in Jefferson Parish, is located more than 40 miles away. However, Highway 90 was created as a companion to the River Birch Type I and II landfill and Highway 90 will receive the bulk of its waste from Orleans Parish. In any event, transportation costs to all three possible candidates are cost-prohibitive for St. Tammany Parish consumers.

Third, while a Type I and II facility may receive Type III waste, they normally do so at an increased disposal cost. A Type III facility, because it is devoted exclusively to the disposal of Type III waste, is able to offer lower disposal costs. Again, this in turn lowers the construction costs which are passed on to consumers.

There are a number of Type II landfills in southeastern Louisiana. Woodside Landfill in Livingston Parish, Tangipahoa Regional Solid Waste Facility in Tangipahoa Parish, Choctaw Road Landfill in Washington Parish, and River Birch Landfill in Jefferson Parish offer disposal alternatives. However, transportation costs become a factor and, because these landfills accept waste other than Type III, their disposal costs are greater than those of Slidell Landfill. Additionally, utilizing scarce Type II landfill space for Type III waste is a misuse of landfill resources. The capacity of Type II landfills should be preserved as much as possible so that their useful life is lengthened as long as possible.

Reducing Illegal Disposal

Slidell Landfill also provides the benefit of assisting in the proper disposal of Type III waste. Because a lower cost alternative exists for the public to dispose of its Type III waste, the amount of debris that is disposed of illegally is reduced. Open dumping and promiscuous dumps will be reduced. Slidell Landfill also assists in ensuring that waste materials are not dumped in unsightly and unsanitary piles by the side of the road.

Conformance to Long-Term Plans

Expanding the facility also offers the benefit of conforming to the long-term plans of St. Tammany Parish. A coalition of affected stakeholders created the St. Tammany Parish Comprehensive Plan, entitled New Direction 2025. The comprehensive plan is split into nine areas, one of which is land use. In a report entitled "2025 Land Use Plan - Supporting Policy and Statement of Fundamental Principles" (the "Land Use Plan"), the New Directions 2025 land use team compiled its land use vision for St. Tammany in the year 2025. The Land Use Plan is attached as Exhibit D.⁴ An expansion of Slidell Landfill, as requested, conforms to the comprehensive plan.

Predictability of land use is sought by landowners, developers, and residents alike. Land Use Plan, Section III.A.1.b. Obviously, the expansion of Slidell Landfill provides the predictability coveted in St. Tammany Parish. First, the landfill provides predictability in that, during the life of the comprehensive plan, the area utilized for Type III waste disposal will remain in such use. Second, and perhaps more importantly, predictability is provided in that no other area of the parish will be utilized for such use, thereby assuring residents that a new Type III landfill will not be built in or near their residential community.

The landfill expansion also conforms to specific land use considerations highlighted in the Land Use Plan. These considerations include: commercial uses should be limited to concentrated focus areas by major highways or crossroads (Land Use Plan, Sections III.B.1.a and III.B.1.c); and industrial uses should be located in close proximity to interstate highway systems (Land Use Plan, Sections III.B.2.a). Slidell Landfill is located along Interstate Highway 10, close to its intersection with Highway 433, in an area zoned or designated for Intermediate Industrial Use. Between the facility and Interstate Highway 10 are a strip of commercial establishments. The current location, in a grouping of commercial and industrial establishments along major thoroughfares and crossroads, clearly conforms to the edicts of the comprehensive plan. It will be difficult indeed to obtain a site, at this time or in the future, that conforms so readily to the comprehensive plan.

Additionally, the Land Use Plan suggests that the rural character of areas currently having that character be preserved. If the expansion is not granted, a location for a facility providing this service will have to be found. Land Use Plan, Section III.B.7. Preserving the rural character of the parish does not include the location of a Type III facility. *Id.* As areas of rural character are to be excluded from consideration for new Type III facilities, the growth of the parish (i.e., increased residential, commercial, and industrial growth) will occupy the

⁴ Available at www.stpgov.org/nd2025/pdfs/nd2025_policy-principles-finalrev.pdf.

available acreage of the parish, leaving insufficient space or area for a new Type III facility. Without such a local facility, disposal costs will increase, with the increased risk of open or promiscuous dumping.

Finally, the Land Use Plan references the companion Economic Development Element of New Directions 2025. Land Use Plan, Section III.C.3.b: The Land Use Plan acknowledges that economic development will occur and that targeted strategies will be utilized to attract commercial, industrial, institutional, and residential uses in the parish. The Land Use Plan notes that appropriate locations for these activities have been suggested and that most of the suggested activities are near major highways and away from residential areas. Thus, Slidell Landfill, in its current location in an industrial area close to a major highway, is ideally poised to conform to the economic development efforts that will assist and manage the economic growth of the area.

Use In Emergencies and Disasters

The Slidell Landfill also provides the benefit of availability in times of emergency and disaster. Many times over the years it has received the woodwaste (a type of Type III waste) generated by local disasters, such as hurricanes. Wooded areas such as St. Tammany Parish will generate vast quantities of woodwaste in such situations. Slidell Landfill is available to provide disposal services in these emergency conditions.

Local Economy Stimulation

Finally, Slidell Landfill provides a great benefit to the local economy, as evidenced by an examination of expenditures in 2004. It employs approximately 15 people, with a combined payroll of \$432,000. This money is spent locally by the employees at neighborhood groceries, gas stations, restaurants, and other such retail establishments. It further stimulates the local economy by making purchases and contracting for services in the local economy: vendors for equipment maintenance (\$167,000), purchasing fuel (\$106,000), professional fees (\$6,000), insurance costs (\$67,000 in premiums through local brokers), and miscellaneous expenses to other outside vendors \$8,000). In all, Slidell Landfill contributed approximately \$886,000 into the local economy in 2004.

Slidell Landfill pays \$6,949 in property taxes to St. Tammany Parish. Over the expected life of the landfill, this will amount, at current levels, to over \$173,000. It pays \$14,200 in annual fees to the LDEQ. Again, over the expected life of the landfill, this will amount, at current levels, to \$355,000.

Conclusion

The LDEQ found in the Basis for Decision issued in 2000 that the benefits of the landfill, in social and economic terms, clearly outweigh the potential environmental impacts of the facility. The same is true today, but the benefits have become even more pronounced with the compatibility of the expansion with the long-term land use plans for the parish. Approving the current expansion request provides St. Tammany and surrounding parishes a much-needed, low cost, environmentally protective Type III disposal facility for years to come.

3) Are there alternative projects which offer more protection to the environment than the proposed project without unduly curtailing non-environmental benefits?

No, there are no alternative projects which offer more protection to the environment than the proposed facility, without unduly curtailing non-environmental benefits. In this regard, a 'no action' alternative, a new Type III facility, a new Type I or II facility, and alternative technologies should be evaluated. Based on this evaluation, there are no suitable alternative projects.

The Basis for Decision

The LDEQ found that the proposed project "offers more protection to the environment than any other possible alternative without unduly curtailing non-environmental benefits." Disposal of Type II waste into a Type I or Type II landfill, and other projects such as recycling/resource recovery, were considered in the BFD. LDEQ reiterated that "there are no alternative projects that would offer more protection." Since the LDEQ's decision, little has changed, except perhaps that the need for a long-term solution to the problem of proper disposal of Type III waste has increased given the projected growth rates in St. Tammany Parish and the comprehensive land use plan for the parish. LDEQ's conclusions regarding the prior permit approval are equally valid today regarding the vertical expansion of the facility.

The 'No Action' Alternative

In the 'no action' alternative, a vertical expansion is not allowed. However, this alternative is not a viable alternative as the benefits of the expansion will be lost and the environment may actually be harmed due to the necessity of permitting a new facility and the increased possibility of open dumping.

As stated above, the benefits of the expansion far outweigh the costs. But, if the expansion is not granted, these benefits will obviously not be realized.

Perhaps the most obvious of benefits that will be lost is the efficient and lower cost disposal of Type III waste. Upon reaching the capacity of the landfill as currently permitted, a different facility must be used. The facility must either be a new facility or an existing facility. Each, however, will increase the costs of disposal.

Permitting a new facility (either Type I, II, or III) in St. Tammany Parish is unlikely. New disposal facilities run directly counter to the Land Use Plan, which seeks to group industries in certain locations, use existing commercial and industrial areas for such purposes, while retaining the rural character of the parish. Thus, finding the actual space to construct a landfill of this type, while adhering to the principles in the Land Use Plan, will be extremely difficult to accomplish. If it is even possible, the huge capital outlay costs to acquire and construct a new facility will cause large increases in the cost of disposal.

Using an existing facility (assuming that all such facilities that are permitted today will be available for disposal when Slidell Landfill reaches its currently permitted capacity) is equally problematic. There are no available facilities close by that offer a viable economic alternative.

Type III waste generators will be required to truck their waste long distances, raising the costs of disposal.

With increased costs, the ability to minimize new open or promiscuous dumps is lost. The incentive to properly transport and legally dispose of Type III waste brought about by low disposal costs will evaporate, leading to the temptation to simply dump Type III waste by the side of the road or in fields. Preserving the rural, picturesque character of the parish, as called for by the Land Use Plan, will become increasingly difficult to accomplish.

Without the expansion, the benefit of conformance with the Land Use Plan is also lost. First, new landfill facilities are simply not contemplated by the Land Use Plan. Second, utilizing a second site in St. Tammany Parish for the disposal of Type III waste runs counter to the principle of using and re-using existing areas for commercial and industrial activity and preserving the rural character of the parish.

Without the use of the landfill, the cost of cleaning up after emergencies, like a hurricane or tornado, becomes more expensive. Scarce government resources will be diverted from helping victims of the disaster to paying higher costs to disposal of woodwaste.

The benefits of a local industry stimulating local economy is lost. Over \$886,000 was directly contributed to the local economy in 2004. This huge direct outlay will be lost, as will the ripple effect on the local economy when those sums are circulated within the community. Additionally, while economic development and the attraction of 'professional' jobs in St. Tammany Parish is a focus of the New Directions 2025 effort, no steady, good-paying employment such as that provided by Slidell Landfill should be forsaken or overlooked. Without the landfill, at least 15 people will be without employment.

Finally, the premature closure of the landfill prior to its full (as requested) capacity runs directly counter to the Land Use Plan. The Land Use Plan states that "aggressive efforts ... should be taken to redevelop existing commercial and institutional sites, and these should be given priority over new developments." Land Use Plan, Section III.B.1.d. In conjunction with this plan, the old landfill cell should be used to its maximum capacity, which in this case means a vertical expansion on top of the north side of it to join with the two currently permitted cells. If the expansion is not granted, existing sites would not be redeveloped, contrary to the plan.

Based on the above, the 'no action' alternative is not a reasonable option.

The New Facility Alternative

The permitting of a new Type III waste facility is a possibility. However, new facilities create costs (both environmental and non-environmental) for the area. A vertical expansion of an existing facility presents none of those types of costs. Siting a new facility that conforms to the Land Use Plan is difficult. The character of rural areas is to be preserved, turning 'greenfield' space into industrial areas is not favored, and existing commercial and industrial areas do not provide sufficient space for a new facility. Construction of a new Type III facility is not a viable alternative.

Likewise, the same reasoning applies to a new Type I or Type II facility that could receive Type III waste. In addition, the cost of disposal in such circumstances is prohibitive. Additionally, the residents of St. Tammany Parish currently have the benefit of a local company, Coastal Waste Services, Inc., that picks up municipal solid waste, brings it to a transfer facility, and then ships it for disposal to the River Birch Landfill in Jefferson Parish. This cost-effective arrangement could last for many years, as River Birch just received an expansion that will offer disposal capacity for decades to come. It would make no sense to permit a new Type I or Type II facility in St. Tammany Parish when its municipal solid waste disposal needs are being met efficiently by existing arrangements.

Alternative Technologies

The alternative technologies of recycling and incineration were evaluated. However, as noted below, this type of waste is not suitable for such technology.

One alternative project is the recycling of Type III waste. However, in order to effectively recycle the waste, it would have to be sorted and stored prior to recycling. Traditionally, costs associated with these labor-intensive operations prohibit this option. Additionally, much of the Type III waste, like demolition materials (e.g., sheetrock), do not easily lend themselves to recycling technologies.

A second alternative is incineration. However, much of this type of waste, like concrete or plastic, does not readily lend itself to incineration, thus ruling out this option. Additionally, air emissions associated with this option may create an unnecessary and unwanted environmental cost.

Thus, there are no alternative projects which offer more protection to the environment than the proposed facility, without unduly curtailing non-environmental benefits.

4) Are there alternative sites which offer more protection to the environment than the proposed project without unduly curtailing non-environmental benefits?

No. There are no alternative sites which offer more protection to the environment than this facility without unduly curtailing non-environmental benefits. A traditional alternative sites analysis is not appropriate as this is an existing facility expansion. LDEQ, in the BFD, reached a similar conclusion in the prior expansion request. BFD, at p. 7.

Two important points should be considered as this alternative sites analysis is reviewed. First, Slidell Landfill is an existing facility. Second, the modification will simply allow an increase in 'airspace' and a slight expansion of the horizontal 'footprint.' No new technology will be used. No new waste streams will be received. Nevertheless, Slidell Landfill has conducted an alternative sites analysis that utilizes the principles established by *Save Ourselves* and its progeny.

An initial consideration in the alternative sites analysis included defining an appropriate 'service area.' In this regard, business planning and decision-making are highly relevant. *In re: Shintech*, 2000-1984 (La. App. 1 Cir. 2/15/2002), 814 So. 2d 20. In *Shintech*, the company made a "business decision" to locate its facility in the immediate vicinity of its largest supplier of raw

material, the Dow plant in Plaquemine, Louisiana. *Shintech*, 814 So. 2d at p. 22. The First Circuit approved the site selection process and the reasoning utilized by Shintech.

Slidell Landfill, as part of its business planning and decision-making, sought to provide a low cost and easily accessible facility that was close to sources of Type III waste. Proximity to these sources is highly relevant as transportation costs limit the distance over which waste may be economically transported. The reasoning of the First Circuit in *Shintech*, in which it upheld Shintech's review of only "sites in the immediate geographic proximity to the Dow plant," is equally applicable to Slidell Landfill's decision to locate its facility near its suppliers. *Id.*, at p. 26.

Slidell Landfill also sought to exclude farmland as well as all undeveloped sites, whether non-industrial or industrial. In this regard, Slidell Landfill is again supported by existing principles enunciated by the First Circuit. Greenfield sites (i.e., those that have never been developed) and undeveloped industrial area sites (i.e., those located in an area of industrial activity, but which do not have an existing facility) "are considered the most environmentally and economically disadvantageous." *Coalition for Good Government v. LDEQ*, 99-2843, p. 20 (La. App. 1 Cir. 10/18/00), 772 So. 2d 715, 728.

Slidell Landfill also sought a location in a industrially zoned area. By locating in such a zone, the facility is ensured of having predominantly industrial or commercial, and not residential, neighbors. In turn, this lowers risks to potential receptor populations and also reduces perceived impacts on property values. Additionally, Slidell Landfill sought a site that provided ready highway access.

From these principles, optimal site or facility characteristics may be discerned:

- i. Proximity to sources of Type III waste;
- ii. Exclusion of greenfields and undeveloped industrial and non-industrial sites;
- iii. Industrial zoning;
- iv. Low population density;
- v. Ready access via highway.

The Slidell Landfill facility possesses each of these desired characteristics. As such, it is the best and most advantageous site.

Slidell Landfill is located in close proximity to its customers. A large volume of Type III waste was created as a result of the hurricane and more will be created as residents and businesses in St. Tammany Parish and the City of Slidell rebuild. The main population of St. Tammany Parish resides in the Slidell area, placing the Slidell Landfill as close to its customers as possible.

Interstate 10 runs right by the facility, with an exit on Old Spanish Trail, allowing ready access for customers. Such proximity and access lowers transportation costs and the amount of time required to complete waste transportation. Additionally, the area is zoned for industrial activity and is fronted by commercial establishments and businesses. As such, it is not in close proximity to highly dense population areas.

Of all of these characteristics, the most important to Slidell Landfill was the exclusion of greenfields and undeveloped industrial and non-industrial sites. Constructing a new facility at such a site would curtail environmental and non-environmental benefits. First, the character of undisturbed land would be forever changed without a pressing need to do so, unnecessarily compromising and destroying the aesthetic value of the predominately rural area of St. Tammany. Locating in a greenfields area would also violate the Land Use Plan discussed above. Secondly, capital resources would be diverted away from more productive uses. Third, there is no need to develop an undisturbed tract to construct a facility that will merely duplicate the equipment and services offered by the current facility.

The exclusion of such sites, with the addition of the necessary operational and design characteristics as noted above, leads inevitably to the Slidell Landfill facility as the site which meets all of the optimal characteristics. As such, there are no alternative sites that offer more protection without unduly curtailing non-environmental benefits.

5) Are there mitigating measures which offer more protection to the environment that the proposed project without unduly curtailing non-environmental benefits?

A review of the environmental control systems in place at the facility demonstrates that there are no mitigating measures which offer more protection to the environment that the proposed project without unduly curtailing non-environmental benefits.

It should be noted that the project itself is a mitigating measure. A well-run and regulated Type III waste disposal facility, such as Slidell Landfill, mitigates against open or promiscuous dumping in the area.

Mitigating measures are discussed in greater detail above. In order to avoid repetition, they will not be repeated herein, but are instead incorporated by reference into this discussion. However, there are some mitigating measures employed at the facility that should be emphasized:

- a. The facility is located in a heavily commercial area which is zoned M-2 (Intermediate Industrial).
- b. The facility is located adjacent to Coastal Waste, a municipal solid waste pick-up station.
- c. Multiple commercial establishments, such as car dealerships and other businesses, line Interstate 10 and Howze Beach Road, partially obscuring the facility from view.
- d. The waste received by the facility is construction and demolition debris and woodwaste. No putrescible waste, with its associated odors and potential for disease, is accepted.
- e. Quality controls systems, such as inspections of incoming vehicles and loads, ensure that no putrescible waste is received. These systems also ensure that no other types of prohibited wastes are received.
- f. There is a sufficient amount of clay under the site to act as an effective barrier against contaminants reaching groundwater.

g. A Stormwater Pollution Prevention Plan is in place for the facility which requires, among other things, that "best management practices" be followed by the facility. The SWPPP and the best management practices assist in ensuring that discharges from the site are in accordance with the facility's LPDES permit.

h. The facility possesses a valid LPDES permit regulating discharges from the facility. Voluntary procedures in place at the facility, including those required by the water discharge permit, ensure that all discharges are closely monitored.

i. This modification request will not impact wetlands in any way. First, actual wetlands (as opposed to jurisdictional or 'historic' wetlands) have not existed on the property for many years. Second, the expansion is primarily vertical, with very little horizontal expansion. The area to be utilized for the horizontal expansion was previously used as a 'borrow pit.' Finally, to the extent that any jurisdictional or 'historic' wetlands do exist on the property, Slidell Landfill is committed, through mitigation, to ensure that no net loss of wetlands occurs as a result of past activities at the site.

j. The facility has recently begun extensive upgrades to perimeter levees and ditches to ensure that all water leaving the site is within permitted parameters.

APPENDIX B

LDEQ BASIS FOR DECISION DATED MARCH 28, 2007

LDEQ-EDMS Document 42459865, Page 55 of 71

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF ENVIRONMENTAL SERVICES
WASTE PERMITS DIVISION

SLIDELL LANDFILL
TYPE III CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL
D-103-2721
MAJOR MODIFICATION APPLICATION, PERMIT NUMBER P-0345

SLIDELL, ST. TAMMANY PARISH, LOUISIANA
AGENCY INTEREST (AI) NUMBER 6054

BASIS FOR DECISION

I. INTRODUCTION

The Louisiana Department of Environmental Quality (LDEQ or Department), Office of Environmental Services, Waste Permits Division, hereby issues to Slidell Landfill, LLC (Applicant), a major modification that includes an increase in capacity of the facility through lateral and vertical expansion to the Applicant's existing Solid Waste Disposal Permit, Standard Permit P-0345. The facility is located at 310 Howze Beach Road, Slidell, St. Tammany Parish, Louisiana.

An extensive analysis pursuant to the "IT" requirements,¹ has been conducted. The Department finds that as part of the "IT" requirements, "adverse environmental impacts have

¹ The "IT Requirements" or "IT Questions" are five (5) requirements that both the permit applicant and the Department consider during certain permit application processes. Save Ourselves v. La. Envtl. Control Commission 452 So. 2d at 1152, 1157 (La. 1984). Although the five (5) requirements have since been expressed as three (3) requirements (see Rubicon Inc., 670 So. 2d at 475, 483), the requirements remain basically the same whether stated as five (5) or three (3). The "IT Requirements" must satisfy the issues of whether:

1. The potential and real adverse environmental effects of the proposed project have been avoided to the maximum extent possible;
2. A cost benefit analysis of the environmental impact cost balanced against the social and economic benefits of the project demonstrate that the latter outweighs the former; and
3. There are alternative projects or alternative sites or mitigating measures which would offer more protection to the environment than the proposed project without unduly curtailing non-environmental benefits to the extent applicable.

been minimized or avoided as much as possible consistently with the public welfare." Save Ourselves v. La. Envtl. Control Comm'n, 452 So. 2d 1153, 1157 (La. 1984); see also In the Matter of Rubicon, Inc., 670 So. 2d 475 (La. App. 1st Cir. 1996), rehearing denied.

For purposes of clarity and emphasis, the "IT Requirements" will be analyzed in five (5) parts as originally set forth In the Matter of Blackett v. Department of Environmental

Quality, 506 So. 2d 749 (La. App. 1st Cir. 1987).

II. BACKGROUND

Slidell Landfill (formerly Johnny F. Smith Truck & Dragline Service, Inc.) is a permitted Type III Construction and Demolition Debris landfill. The facility is located approximately 20 miles west of New Orleans at 310 Howze Beach Road in Slidell, St. Tammany Parish, Louisiana. A Type III facility is defined in LAC 33:VII.115 as a facility used for disposing or processing of construction/demolition debris or woodwaste, composting organic waste to produce a usable material, or separating recyclable wastes. Residential, commercial, or industrial solid waste must not be disposed in a Type III facility. Construction/demolition debris is defined in LAC 33:VII.115 as non-hazardous waste generally considered non-water soluble, including but not limited to metal, concrete, brick, asphalt, roofing materials (shingles, sheet rock, plaster), or lumber from construction or demolition project, but excluding asbestos-contaminated waste, white goods, furniture, trash, or treated lumber. Woodwaste debris is defined as yard trash and types of waste typically generated by sawmills, plywood mills, and woodyards associated with the lumber and paper industry, such as wood residue, cutoffs, wood chips, sawdust, wood shavings, bark, wood refuse, wood-fired boiler ash, and plywood or other bonded materials that contain only phenolic-based glues or other glues that are approved specifically by the administrative authority. Treated or painted lumber is not considered woodwaste under this definition.

The Slidell landfill is divided into two distinct cells, Cell No. 1 and Cell No. 2. Cells No. 1 and 2 were permitted by the Louisiana Department of Environmental Quality on September 26, 2000 (Permit No. P-0345). The old Slidell Landfill, previously known as the Johnny Smith Landfill, is located contiguous to and south of Cell No. 2. The old landfill is approximately 20 acres in size and shares a common boundary with Cell No. 2 of the Slidell Landfill.

The old Slidell Landfill was previously operated as a Type III landfill and is under an "Order to Close" issued by the Louisiana Department of Environmental Quality (No. 0246-A-2). Rather than close the old landfill, Slidell Landfill, LLC. proposed to combine the old landfill with permitted Cells No. 1 and 2 to the north. The combination of the landfill footprints will increase the available airspace in a lateral and vertical direction.

III. PUBLIC NOTICE, HEARING, AND COMMENT

A Major Modification for Slidell Landfill, LLC. was submitted on May 21, 2004. The permit modification was deemed administratively complete on July 8, 2004. After several rounds of notices of deficiency, final copies of the major modification were received on April 19, 2006, and the modification application was deemed technically complete on May 17, 2006. A public notice of the technically complete modification was published on May 31, 2006. On July 5, 2006, the public comment period ended on the technically complete modification. A public hearing was held on the technically complete modification on August 17, 2006 which began an additional public comment period that was to end on September 18, 2006. The comment period for the public hearing was extended from September 18, 2006 to October 2, 2006 because the public notice was published in one of the well-circulated papers, but was not published in a second paper to which most of the residents in the area subscribe.

IV. A RESPONSE TO ALL REASONABLE COMMENTS

A response to all reasonable public comments is attached to and made part of this Basis for Decision.

V. ADDITIONAL FINDINGS

Based on the original submittal, the landfill permitted height was approximately 18 feet. The facility submitted a permit modification request on May 21, 2004 and an addendum to the permit modification dated August 30, 2004. This permit modification requested that the facility be allowed to increase the original permitted height from 18 feet to 125 feet. In response to public concerns, the facility notified the Department via correspondence dated November 28, 2006, that the proposed final elevation would be reduced from 125' to 85'; thus, reducing the remaining life of the landfill to three or four years.

VI. ANALYSIS OF ENVIRONMENTAL ASSESSMENT STATEMENT

1. LAC 33:VIL523.A. A discussion demonstrating that the potential and real adverse environmental effects of the facility have been avoided to the maximum extent possible.

The Department finds that the potential and real adverse environmental effects of the facility are avoided to the maximum extent possible.

The environmental media which may be affected by the modification of the facility are groundwater, surface water, and air quality impacts. The following is a general description of real and potential adverse environmental effects and the measures to be taken to ensure maximum protection to the environment.

Groundwater and Surface Water Contamination

A potential and real adverse environmental effect is that contaminants from waste could come in contact with stormwater or exiting surfacewater. A review of the groundwater and surface water impacts concluded that such media will be protected due to the monitoring required under the facility's Louisiana Pollution Discharge Elimination System ("LPDES") permit. The facility also has in place a waste acceptance plans which ensures that only Type III waste is received and disposed of at the facility.

An in-depth geotechnical investigation was conducted as required by the Louisiana Solid Waste Regulations to properly identify subsurface conditions. The facility is permitted to discharge to surface waters pursuant to LPDES Permit No. LA0105465. The potential for impact to surface water from the facility would be minimized as the discharges would be monitored in accordance with the LPDES permit. The perimeter levees that exist at the facility ensure that all water is held on-site for treatment prior to discharge; thus, assuring an additional means of controlling the quality of the discharges.

11/20/2001 10:04

Air Quality Impacts

The potential adverse effects to air quality posed by the facility include odor and particulate (dust) emissions. Due to the nature of waste received and the operational practices of the facility, these potential effects are minimized to the maximum extent possible. The inspection of incoming waste shall ensure no disposal of putrescible waste shall occur; thus, no degradation of air quality should be associated with the facility. Although the potential for the creation of dust is present, dust will be controlled by the application of water, frequent mechanized sweeping, and the observance of speed limits during waste transportation will serve to minimize this potential adverse impact.

Land Use

The present use of the land occupied by the landfill is specifically for the intake of Construction/Demolition Debris and Woodwaste. The acceptance of any unauthorized waste is strictly prohibited. The existing facility will be operated in an environmentally sound manner.

2. **LAC33:VII.523.B. A cost-benefit analysis demonstrating that the social and economic benefits of the facility outweigh the environmental impact cost.**

The social and economic benefits of the facility will greatly outweigh its environmental impact. As previously stated, the operational and permitting requirements help minimize the potential impact. Slidell Landfill provides services to the construction community and to the residents of St. Tammany that are in the process of rebuilding as well as providing a means for disposal of hurricane-generated debris. Therefore, offering a means of lowering disposal and transportation costs, reducing illegal dumping in open dumps, providing services in emergencies and disasters and stimulating the local economy. This is the only permitted Type III facility in the parish and closure of this landfill may increase the occurrence of illegal dumping throughout the parish and surrounding parishes.

3. **LAC33:VII.523.C. A discussion and description of possible alternative projects which would offer more protection to the environment without duly curtailing non-environmental benefits.**

The Department finds that there are no alternative projects which would offer more protection to the environment without unduly curtailing non-environmental benefits.

Construction/demolition debris and woodwaste may be disposed by various methods. In an effort to ensure proper disposal of such materials, a Type III landfill is the most environmentally safe option. Incineration is an alternative project considered, but would incur additional expenses in order to successfully execute such operations. Additionally, significant air pollution control methods would have to be implemented. There are currently no obvious benefits to obtaining a solid waste permit for incinerating woodwaste.

Composting is an alternative project considered for woodwaste, but because of the composition of C&D waste, the majority of the waste stream is not suitable for composting. There are no alternative practices that would entail less risk to human health and the environment.

PHR-23-2207 13-00

Any alternative waste handling or disposal is not economically practicable and because no quantifiable adverse environmental impacts have been confirmed or projected, no alternative projects are considered necessary. Another alternative is to deny this application. This alternative would result in the immediate closure of the facility without the ability to efficiently achieve the proper grades and slopes for closure. Additionally, the parish will not have sufficient time to seek alternative disposal location for C&D debris generated in the parish.

4. LAC33:VII.523.D. A discussion of possible alternative sites which would offer more protection to the environment without unduly curtailing non-environmental benefits.

Upon evaluating this modification application, the Department concluded that there are no alternative sites that would offer more protection to the environment than the existing site, without unduly curtailing non-environmental benefits.

The Slidell Landfill is an existing facility and therefore, maximizing the current available landfill disposal area is a preferred alternative for providing available C&D capacity rather than permitting a new C&D landfill. According to the original submittal, some alternative sites were evaluated. Due to a range of findings, they were deemed unacceptable based on their environmental, social, and economical impacts.

5. LAC33:VII.523.E. A discussion and description of the mitigating measures which would offer more protection to the environment than the facility, as proposed, without unduly curtailing non-environmental benefits.

The Department finds that there are no other mitigating measures which would offer more protection to the environment than the facility, as proposed, without unduly curtailing non-environmental benefits.

The design and operation of the proposed site will effectively curtail any negative impacts to the environment. As a permitted construction and demolition debris landfill, the facility will be required to operate in accordance with the Solid Waste Regulations and all information provided in the facility's permit modification application. The Department is requiring a minimum of two spotters at the working face during operation of the facility, in consideration of the volume of the waste accepted. The spotters will observe the unloading of the waste, activity at the working face and be available to spot and segregate any unacceptable waste.

Additionally, as part of its analysis of the social and economic benefits of the existing facility, the Department considered capacity requirements set forth by La. R.S. 30:2179 of the Environmental Quality Act. Pursuant to La. R.S. 30:2179(B)(3), the Department, specifically the Secretary of the Department, is charged with ensuring that "sufficient validly permitted waste handling, treatment, destruction, and disposal capacity exists to safely and efficiently manage or dispose of waste substances in emergency situations or waste substances originating from in-state waste sites."

11/17/2010 10:00

The Department has determined that the issuance of the Type III Permit Modification for the existing Slidell Landfill facility is necessary for Louisiana to safely reduce, transport, manage, and dispose of these wastes. Furthermore, the Department finds no additional device, system, or procedure that would provide any greater environmental protection than that which is presently incorporated into the design and permit requirements of the facility.

VII. CONCLUSION FOR BASIS OF DECISION

Based on a careful review of the record by the Department, which includes the permit modification document, additional information submitted by the applicant, and public comments received, the Department makes the following conclusions as to the Type III C/D Landfill major modification:

1. The real and potential adverse environmental effects have been avoided to the maximum extent possible.
2. The social and economic benefits outweigh the potential or real adverse environmental impact cost.
3. The Applicant did consider alternative projects, and after conducting an independent review, the Department concurs with the Applicant's decision to employ the proposed project because the alternative projects did not offer more protection to the environment without unduly curtailing non-environmental benefits.
4. There are no alternative sites which would offer more protection to the environment without unduly curtailing non-environmental benefits.
5. There are no alternative mitigating measures, which would offer more protection to the environment than the proposed facility without unduly curtailing non-environmental benefits.

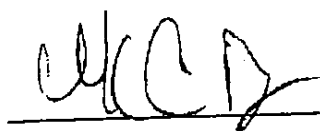
In addition, this modification has been approved with the following conditions:

1. The maximum elevation of the top of waste may not exceed the existing elevation of ± 65 feet;
2. The facility shall cease accepting waste prior to January 31, 2010 and the final closure activities must be completed by May 2010. This would allow the facility sufficient time to reach proper grades and slopes for the purpose of closure and for the parish to find an alternate disposal for C&D debris generated in the parish.

PARK-20-2001 13-00

3. The facility shall have a minimum of two spotters at the working face during operating hours to monitor landfill operations; and
4. The daily Compliance Evaluation Form shall be submitted to the Department on a weekly basis.

Therefore, the Department hereby finds that the Type III C/D Landfill major modification will be protective of human health and the environment and hereby modifies Standard Permit P-0345 for Slidell Landfill, LLC.



Chuck Carr Brown, Ph. D.

Assistant Secretary

Office of Environmental Services

3/28/07
Date

kg

APPENDIX C

PREVENTATIVE MAINTENANCE/COMPLIANCE EVALUATION FORM

PREVENTATIVE MAINTENANCE/COMPLIANCE EVALUATION FORM

SLIDELL LANDFILL
SLIDELL, LOUISIANA
DATE _____

A. Landfill Office and Scale Area

1. Is tower manned and/or camera in operation? _____ yes _____ no
2. Are rejected loads being documented? _____ yes _____ no

Comments/Required Actions: _____

B. Landfill Area

1. Are adequate spotters on-site? _____ yes _____ no
2. Are standard operating procedures being properly executed (ie; inspection of loads prior to transporter being allowed to leave site)? _____ yes _____ no
3. Any unacceptable materials observed on landfill face? _____ yes _____ no
4. Are all unacceptable materials, if applicable, being removed from landfill and placed in appropriate containers? _____ yes _____ no
5. Are rejected loads being documented? _____ yes _____ no
6. Is fencing in place and is wind-blown paper being minimized? _____ yes _____ no
7. Are landfilled materials being covered at least every 30 days? _____ yes _____ no

Comments/Required Actions: _____

PREVENTATIVE MAINTENANCE/COMPLIANCE EVALUATION FORM

SLIDELL LANDFILL
SLIDELL, LOUISIANA
DATE _____

C. Perimeter Ditches, Berms and Levees

1. Are perimeter ditches in good condition with minimal silting? _____ yes _____ no
2. Are side slopes in good condition with minimal erosion? _____ yes _____ no
3. Are perimeter levees and ditches containing and transporting all water on-site? _____ yes _____ no

Comments/Required Actions: _____

D. Stormwater Holding Pond

1. Is all stormwater being routed to holding pond at northeast corner of site? _____ yes _____ no
2. Is there any evidence of sheens or other concerns in stormwater holding pond? _____ yes _____ no
3. Is stormwater pond level high and in need of pumping? _____ yes _____ no
4. Is stormwater being pumped at present?
If so, were passing analytical results confirmed prior to pumping and has a discharge sample been collected? _____ yes _____ no
_____ yes _____ no
5. If stormwater is being pumped at present, are there any concerns regarding the quality of the water being pumped based on visual inspection? _____ yes _____ no

Comments/Required Actions: _____

PREVENTATIVE MAINTENANCE/COMPLIANCE EVALUATION FORM

SLIDELL LANDFILL
SLIDELL, LOUISIANA
DATE _____

E. On-site Personnel Interviews

1. Are LDEQ and/or EPA personnel on site? _____ yes _____ no

If so, names of the personnel: _____

2. Based on interviews with LDEQ/EPA personnel, are there any issues requiring attention at the landfill that they are aware of? _____ yes _____ no
If so, list: _____

Comments/Required Actions: _____

F. Reporting Activities

1. Have any issues requiring action by Slidell Landfill personnel been identified as a result of this inspection? _____ yes _____ no
2. If yes, list each issue individually and list the Slidell Landfill personnel to which each issue was referred to: _____

G. Unresolved Issues

1. Are there any unresolved issues from prior site inspections? _____ yes _____ no
2. If yes, list each issue individually and list the Slidell Landfill personnel to which each issue was referred to: _____

Name of Inspection Personnel: _____

Date: _____

Signature: _____

APPENDIX D

EXCERPTS FROM ST. TAMMANY PARISH, LOUISIANA SOLID WASTE IMPLEMENTATION PLAN



St. Tammany Parish, Louisiana

Solid Waste Management Implementation Plan

February 11, 2009



St. Tammany Parish Government
BUILDING EXCELLENCE

Draft Report

Section 1

Executive Summary

St Tammany Parish is a growing Parish with a population approaching the 2010 Census estimate of 241,914 people. The population has grown by 20 percent between 2000 and 2006 with expected growth of 35% over the next 20 years. With this population growth comes an increase in waste volume of Municipal Solid Waste (MSW) and Construction and Demolition Waste (C&D) including yard waste and potential recyclables. Waste volumes within the Parish are expected to reach 726 tons per day for MSW and 121 tons per day of C&D waste by 2010. This increase in population and waste volume requires planning and a more controlled and organized approach to the Parish's solid waste management program.

Currently there are no MSW landfills and only one C&D landfill in the Parish. This lack of solid waste disposal facilities requires that MSW waste be collected and transferred out-of-Parish thereby resulting in additional costs for disposal. The permit for the C&D landfill located in the Parish expires on January 31, 2010 which will result in the C&D waste also being transferred out-of-Parish at a higher cost.

CDM has reviewed the existing Parish solid waste management system and has provided recommendations for the improvements and implementation measures. Improvements to the solid waste management system for St. Tammany Parish were focused on the development of a multi-purpose solid waste management facility and to provide for an organized waste and recyclable collection system. CDM, in working closely with the Parish, has developed the concept of an Eco Park Solid Waste Management Facility.

1.1 Eco Park Solid Waste Management Facility

The Eco Park is a solid waste management facility that establishes an emphasis on recycling and waste minimization utilizing governmental controls, public participation and private sector involvement. Integrating as many solid waste processes, recycling, and conversion technologies as possible will develop a robust, flexible, and cost-effective approach to resource recovery. This will allow options to be exercised depending upon local conditions, quantity surges in materials due to storm events, fluctuations in market conditions, and periodic maintenance outages for various systems. The intent is for the facility to be economically viable and to provide for commercial participation in the management of the waste materials. A significant portion of the parcel will be devoted to buffer areas which shield the Eco Park from the surroundings. The time has come for proactive and progressive management of solid waste and the Eco Park concept can provide an innovative and sustainable solution for St. Tammany Parish.

The Eco Park concept is totally flexible. The facility can be developed in phases to allow for available funding and Parish priorities. Components can be added in the future to meet public needs and markets for materials. Private sector participation is crucial for

privately operated transfer stations within unincorporated St. Tammany could provide a location for recycling drop off centers. This concept is currently being explored.

3.2 Transfer & Disposal

All municipal solid waste (MSW) generated within St. Tammany Parish is hauled out of the Parish for disposal at permitting landfill in nearby Parish's or Mississippi. Construction and Demolition Debris (C&D) is regulated separately from MSW. C&D waste is defined as "non-putrescible" (won't readily decompose) and consists of wood, sheet rock, bricks, concrete, roofing materials and similar debris generated from demolition and renovation activities.

Slidell Landfill is the only operating Type III C&D Debris Landfill (LDEQ Facility D-103-2721) located in St. Tammany Parish. The facility is located at 310 Howze Beach Road in Slidell, St. Tammany Parish, Louisiana and a location map can be seen in Figure 3.2. The landfill is divided into two cells that were originally permitted by LDEQ on September 26, 2000 (Permit No. P-0345) to the height of approximately 18-feet. Due to the C&D disposal needs for site after Katrina, a permit was issued to extend capacity to 65 feet. The permit for the disposal site expires January 31, 2010. The current operator, Slidell Landfill, LLC, has proposed to extend the lifespan of the facility through a permit modification with LDEQ. Although public opposition of the site is strong, it is unknown at this time if an extension will be granted. This C&D facility is located in a residential area and the public strongly feels it affects the community negatively. When this facility closes, St. Tammany Parish will be without an operating disposal site for C&D waste. Given the need for disposal of this type of waste, particularly due to hurricane generated waste, the loss of this facility without an appropriate replacement would result in a hardship for the citizens and businesses in the Parish.

Littering and illegal waste disposal practices are occurring in St. Tammany Parish. Residents that live in rural areas of the Parish that do not want to pay for curb-side pick up or tipping fees either burn or bury their waste. It is evident that some haulers are illegally dumping waste along roadsides to lower operational costs.

3.2.1 Transfer Stations

Due to the lack of a Municipal Solid Waste (MSW) landfill in the Parish, all of the MSW that is produced in St. Tammany is transferred out of the Parish to remote landfills. The waste handling process begins with haulers collecting the waste from the individual households and delivering it to transfer stations. These stations are sites permitted to receive waste and reload it to larger trucks for transfer to final disposal. Generally, storage of waste is not permitted beyond daily needs. The waste is handled by heavy equipment and loaded into tractor-trailer trucks that will make the long haul trip to the landfill. This operation is more economical and allows route trucks to concentrate on collections without having to make the long trip to the

Section 4

Disposal Alternatives

4.1 Alternatives

As described above St. Tammany Parish currently utilizes the Slidell Landfill for disposal of C&D materials and out of Parish landfills for MSW disposal. The current system is functional, but future landfill closures and economic factors will dictate new approaches. However, opportunities for recycling are very limited under this existing system.

The Slidell Landfill is likely to close as soon as LDEQ permit expires (January 2011) unless they are successful in gaining an extension. Public opposition to continued operation is strong and the location of the facility is in a high growth area with commercial and residential development. Therefore an alternative method of C&D disposal is critical both for economic and environmental reasons. Safe, affordable C&D disposal is a necessity for economic growth in St. Tammany Parish. C&D disposal capacity can be obtained either from development of a new landfill or hauling of the material to existing permitted facilities. Hauling of C&D to out of Parish facilities is likely to lead to unacceptably high disposal prices. The C&D market is very sensitive to cost and a local disposal solution is usually an economic necessity.

MSW has been managed by out-of-Parish disposal primarily at three landfills (see previous section). The Parish can continue to utilize this option as provided by the commercial haulers or it can exercise control of the waste stream by other means. The alternatives available are; 1) continue current practice, 2) develop a Parish MSW landfill, or 3) direct the flow of MSW through governmental control.

Continuing the current practice is feasible for the foreseeable future but transportation costs will adversely impact the economics as fuel prices rise and fluctuate. There is ample capacity at the out-of-Parish facilities to last for many years. The tipping fees can be fixed based on long term contracts; but eventually market conditions will result in higher disposal costs as well.

Development of a Parish Landfill would provide a number of significant benefits for MSW management. Tipping fee costs could be minimized and controlled. Capacity could be preserved for the residents of the Parish and transportation costs would be greatly reduced. Further, the costs could be reduced to the benefit of the paying residents. The landfill could also generate revenue at little or no cost to the users.

Another option would be Parish management and control of the MSW wastestream through regulation. Agreements with specific out-of-parish landfills and commercial haulers could allow the Parish to dictate the flow of solid waste and establish long term disposal costs. This would be difficult to implement, since the Parish doesn't yet control collection of residential waste on anything approaching a Parish-wide basis. This also makes it difficult to implement cost effective recycling programs.

Since C&D disposal will become a Parish problem when Slidell Landfill closes, a solution for this wastestream must be found quickly. MSW may continue with the existing management

management plan is the development of a C&D disposal facility. When the Slidell Landfill closes in 2010 the Parish will need to transport C&D waste out of the Parish. With rising costs in fuel, transporting this waste out of the Parish is not economical. This component must be first priority for St. Tammany Parish.

A MSW site is the second stage for a waste disposal site. This site will be of similar sizing to the C&D site. MSW waste is the sector of waste management where the most revenue can be generated. MSW contains recyclable waste and energy that global and local markets are seeking. Processing of MSW to extract recyclable component is readily available through the Eco Park concept.

Creating facilities that collect and manage reusable materials is an important component of an Eco Park. Research and technology is continuing to evolve regarding the beneficial uses of solid waste. The cost of developing, building, and operating such infrastructure is initially expensive. These facilities usually pay for themselves in a span of 10 to 20 years. Afterwards the revenue generated can be used for new development and O&M of the disposal facility. The Eco Park concept is flexible and the facility could include C&D disposal, MSW disposal, many types of recycling, composting, and related waste management components. The Parish would decide which of the system components to activate based on need and the desires of the residents. The following section on population is provided to help determine the size and components of an Eco Park for St. Tammany Parish.

The facility can be developed and permitted in phases. The initial phase is expected to include the C&D landfill, green waste processing, recycling drop off center, and areas for tire, used oil and battery drop off. The design and permitting is expected to take up to 3 years for regulatory approval from LDEQ.

The benefits to the Parish include a long term option for disposal of waste, cost competitive waste disposal without shipping to out-of-Parish facilities, an effective recycling program and a more environmentally friendly solid waste management system.

7.1.2 Collection System

LDEQ records show that there are 24 haulers operating in St. Tammany Parish for waste collection. This many haulers cause an inefficient and potentially harmful collection system. This situation produces several negative consequences:

- Safety issues due to increased truck traffic in neighborhoods and on the roads;
- Environmental impacts due to pollution of additional truck traffic;
- Deterioration of Parish roads due to unnecessary heavy traffic;
- Traffic impacts on some rural roads, which are not wide enough to have trucks collecting waste and traffic on both lanes;
- Difficulty to enforce Parish minimum standards for garbage trucks ;